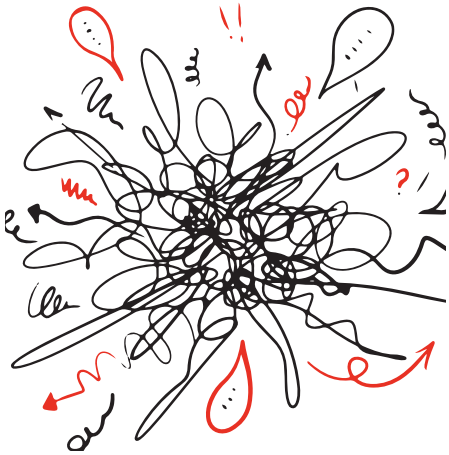
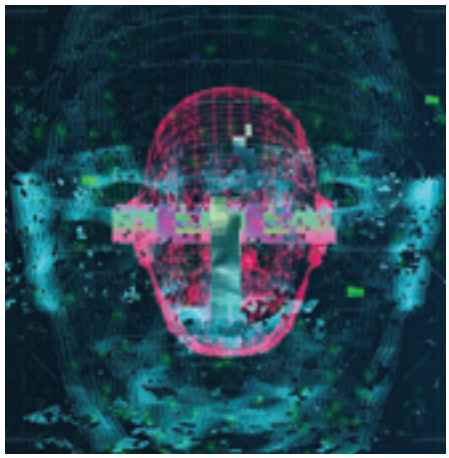
AMERICAN PSYCHOLOGICAL ASSOCIATION

monitor on psychology

12 EMERGING TRENDS FOR 2024

WHAT'S AHEAD FOR PSYCHOLOGISTS THIS YEAR?





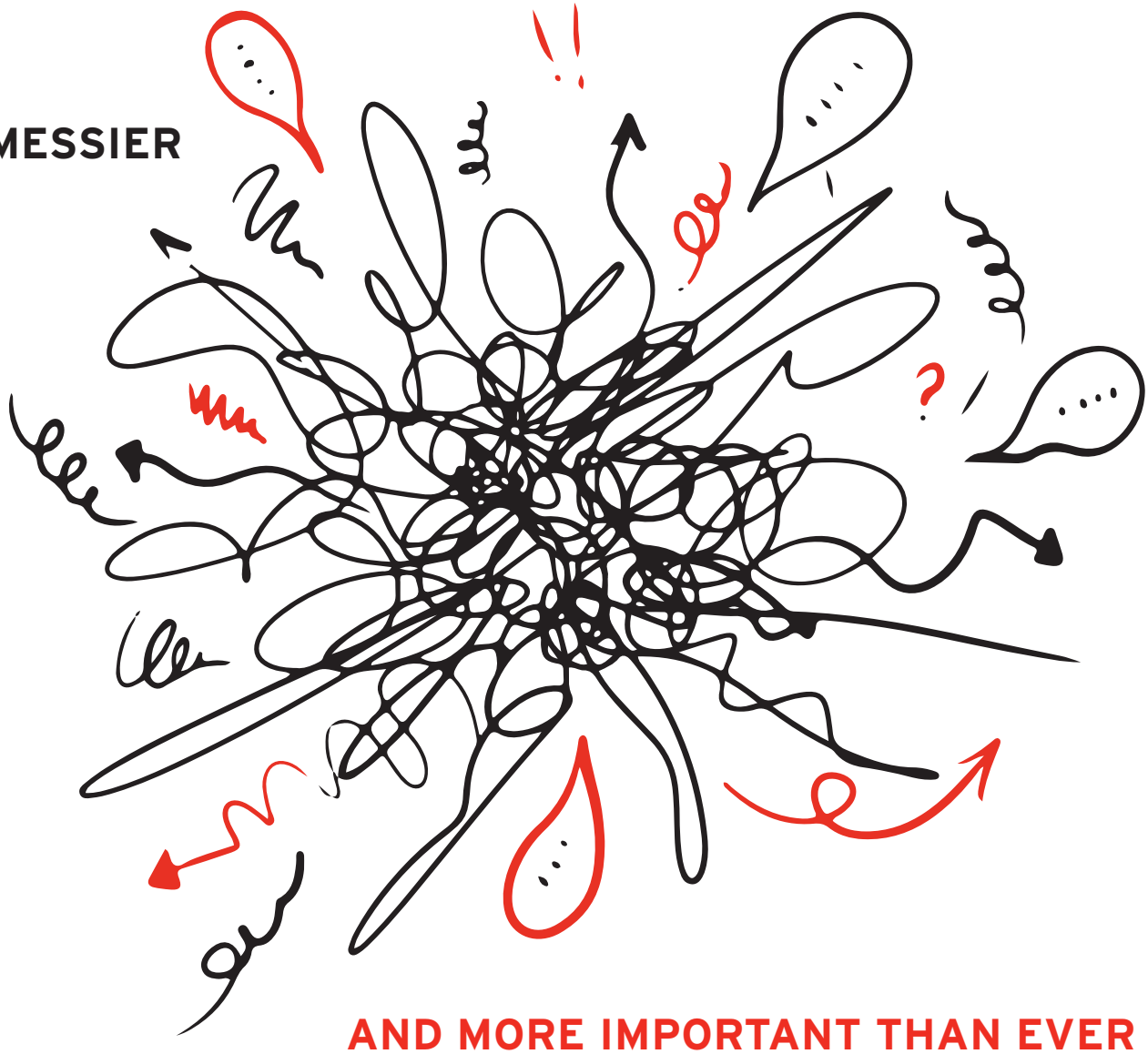
SPECIAL REPORT

12 EMERGING TRENDS FOR 2024

What's ahead for psychologists and the field?

In 2024, psychology is playing a major role in pointing the way toward a healthier, more just society. With rampant misinformation and a presidential election on the line, we all have a basic duty to engage, using the tools of psychological science to counter falsehoods. Psychologists are also working to guide the development of generative artificial intelligence, but there is much to learn. And the outlook for higher education, women's and LGBTQ+ individuals' rights, racial equity, access to mental health care, workplace satisfaction, addiction rates, and much more will depend greatly on the work of psychologists.

THIS ELECTION YEAR, FIGHTING MISINFORMATION IS MESSIER AND MORE IMPORTANT THAN EVER



Psychologists are using science communication to set the record straight. But it's ugly out there.

BY KIRSTEN WEIR

During the U.S. presidential election in 2016, "fake news" was the phrase on everyone's lips. Two election cycles later, the threat of misinformation has only become more insidious. "We haven't seen anything like this in our postwar modern political reality," said Howard Lavine, PhD, a political psychologist at the University of Minnesota who studies the psychology of mass political behavior. "Misinformation in politics is one of the most difficult problems to crack."

Despite the challenge, psychologists are pushing back against the threat of misinformation by studying its spread and sharing psychological science with the public. It's not easy. Internet trolls, online harassment, and the growing threat of legal action make speaking out against misinformation increasingly fraught. But experts say standing up for the truth can make an impact—and the more psychologists who get involved, the bigger that impact can be.

"As scientists our job is to fill the world with more knowledge. To do that we need to communicate to people and not just to each other," said Gordon Pennycook, PhD, a psychologist who studies misinformation at Cornell University. "Individually, we may all play a small role. But we shouldn't underestimate our collective role in improving the information ecosystem," he added. "If we aren't each doing our best to get good information out there, misinformation is going to win."

PUSHING BACK AGAINST MISINFORMATION

In many ways, communicating with the public is easier than ever. Whether you prefer YouTube, podcasts, TED Talks, blogs, or social sites like TikTok or Blue Sky, there's no shortage of ways to put your message out there. "With social media, there has been a radical change in how we share science even compared to 10 years ago," says Jay Van Bavel, PhD, a professor of psychology and neural sciences at New York University. "We have more of a voice than ever, and there is a thirst for it from the public."

While the rise of social media has made communication easier, it has also fueled the spread of false and misleading information—about everything from climate change to election integrity to the very shape of the planet we stand on. Social media typically lacks the oversight and safeguards of legacy media to prevent and correct false claims. Its algorithms and peer-to-peer sharing model are a perfect setup for misinformation to be shared widely, especially within the echo chambers that form online.

The more people hear those falsehoods, researchers have found, the more likely they are to believe them—even if the information contradicts their prior beliefs (Fazio, L. K., et al., *Journal of Experimental Psychology: General,* Vol. 144, No. 5, 2015). During the 2020 presidential election, false claims about election fraud were rampant. Three days after Joe Biden was declared the winner, Pennycook and MIT researcher David Rand, PhD, found a majority of Trump voters falsely believed that Trump was the rightful victor. Those beliefs were more common among people who followed election news closely (*Harvard Kennedy School Misinformation Review*, Vol. 2, No. 1, 2021). Such findings suggest it's important to nip misinformation in the bud before people have been exposed to it multiple times.

Research also points toward some best practices for setting the record straight. Fact-checking, or debunking false claims, can be effective. But there is a right way to approach it, Van Bavel said. Debunking is most effective when you can explain why the information is false and provide alternative information (van der Meer, T. G. L. A., & Jin, Y., *Health Communication,* Vol. 35, No. 5, 2020). Sharing misinformation to call it out could inadvertently drive traffic to the person spreading the false claim. A better way is to screenshot the incorrect statement and share it with a clear explanation of facts and a link to an original expert source. "The way algorithms work, fact-checking in the wrong ways accidentally amplifies misinformation," Van Bavel said.

With the presidential election coming up in November, the stakes for combating misinformation have never been greater. Delivering effective messages and dealing with online bullies is a challenge, but there are tools to help.

PERI PRIATNA/GETTY IMAGES

BUILDING TRUST

Fostering trust with your audience is another important facet of science communication. In a study that spanned five countries, including the United States and the United Kingdom, Sander van der Linden, PhD, a social psychologist at Cambridge University, and colleagues showed that higher trust in scientists was correlated with reduced belief in

COVID-19 misinformation (*Royal Society Open Science,* Vol. 7, No. 10, 2020).

Unfortunately, trust in politics is particularly lacking—and that's no accident, Lavine said. A common tactic of modern politics is to demonize and dehumanize the opponent, he explained. "In that space, [false or misleading] statements from partisan elites become more credible. Once you've dehumanized the other side, misinformation and conspiracy theories that would seem bizarre now become believable." And scientists have become a frequent target for those attacks. Yet all hope is not lost. One way psychologists can engender trust is by staying in their lane, van der Linden said. As a misinformation researcher, he publicly admits he's not the expert on virology or climatology, so he doesn't debate the fine points of false claims about COVID-19 or climate change. Instead, he focuses his attention on discussing the psychological processes that make people fall prey to misinformation.

"People who believe one conspiracy theory are more likely to believe others. So it's less important to get into the nitty-gritty of whether a specific conspiracy is true or not and more effective to promote the kind of thinking that will help people recognize logical fallacies or manipulation techniques," van der Linden said. Such techniques include using language that stokes fear or outrage, impersonating a trustworthy individual or organization, exaggerating polarization by using "us vs. them" language, and attacking a person's character to take attention away from their argument. "As psychologists, we can help people calibrate their judgments and empower them to make up their own minds," he added.

One way psychologists are doing that is through "prebunking," interventions designed to inoculate people against misinformation they might encounter in the future. Just as vaccines use weakened pathogens to stimulate the immune system to fight against viruses, prebunking exposes people to weakened versions of persuasive arguments to build their resistance to manipulation and misinformation. Researchers have designed infographics, videos, and even games to help people learn to recognize and resist the persuasion techniques used in misinformation. In one example, van der Linden and colleagues showed that a prebunking game significantly improved participants' ability to identify misinformation techniques and also increased their confidence in their own judgments (*Journal of Cognition,* Vol. 3, No. 1, 2020).

THE WILD WEST

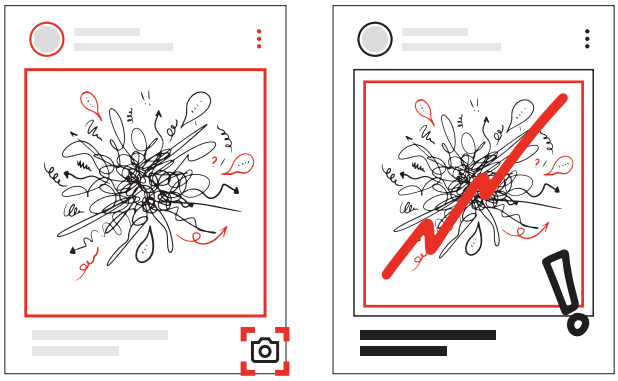
Staying focused on psychological science—rather than engaging in political shouting matches online—also helps protect communicators from becoming targets of trolling and harassment. (See sidebar.) Unfortunately, online abuse

PROTECT YOURSELF FROM TROLLS

"If you share online about sensitive topics, you risk getting criticized, trolled, and threatened," said New York University psychologist Jay Van Bavel, PhD. He learned that lesson the hard way in 2021 when he helped fact-check a false claim about COVID-19. In a coordinated online attack, he became the target of hundreds of angry messages from an online mob of conspiracy theorists. Some of them even contacted NYU to try to discredit Van Bavel with his superiors. (NYU's provost responded by sending Van Bavel messages of support.)

You can't predict when a post might go viral and become a target for online aggressors. But there are ways to protect yourself online.

- **Consider the risks:** Trolls are more likely to target members of nondominant groups, such as women, people of color, and LGBTQ+ people (Vogels, E. A., "The State of Online Harassment," Pew Research Center, Jan. 13, 2021). And some institutions may not be entirely supportive of their faculty. Speaking out isn't for everyone, so consider your situation before you engage.
- **Protect privacy:** Familiarize yourself with the privacy settings on your social media sites of choice and avoid posting family pictures or personal information on public accounts.
- **Support colleagues:** Not everyone who speaks out has tenure or support from their institutions. If you are in a secure position, consider speaking up when you see a colleague being harassed for fighting back against misinformation. "Targeting someone online is harder if there are more people speaking up collectively," said Cornell University psychologist Gordon Pennycook, PhD. "If only a few people are standing up, it's easy to knock them down."
- **Use digital tools:** Learn to use built-in tools to mute, block, and report trolls, online abuse, and hate speech. If you get a flurry of attention on X, check to see if you've been added to any lists and remove your name from any that seem suspicious. Trolls often add people to lists for easy targeting by other online harassers.
- **Let it pass:** For Van Bavel, the flurry of interest died down after a few days. That's typical, Pennycook said. "If you go viral, there's usually a flood of attention and then it stops, and life moves on. You can hunker down for a week and go back to normal."



Debunking is most effective when you can explain why the information is false and provide alternative information. Here's the best method: Screenshot the incorrect statement and share it with a clear explanation of facts and a link to an original expert source.

PERI PRIATNA/GETTY IMAGES; ERE/GETTY IMAGES

is just one of the risks of speaking out against misinformation. "In some ways, trolls are the easier problem to deal with. The bigger risk now, especially with political misinformation, is that companies and Congress are coming after disinformation researchers," Van Bavel said.

Over the past year, activists have set their sights on researchers who study misinformation. Ohio Congressman Jim Jordan, chair of the Republican House Judiciary Committee, has accused misinformation researchers of colluding with the government to suppress conservative speech, keeping them busy with a flurry of public records requests and threats of legal action. In May, the advocacy group America First Legal filed a lawsuit against researchers at the Stanford Internet Observatory, a program at Stanford University that focuses on misuse of social media. A month later, X (formerly Twitter) filed suit against the nonprofit Center for Countering Digital Hate. "We're seeing a huge backlash against the very concept of misinformation. So, it's more prudent than ever to find ways to engage that speak to our strengths as psychologists," van der Linden said.

Speaking out is difficult but more important than ever. "There's been a huge chilling effect on researchers speaking out about misinformation. Between trolls and lawsuits, it's the Wild West out there," van der Linden said. That chilling effect extends to the NIH, which this year halted a planned $150 million program to improve communication of health information, citing legal threats as one factor in the decision. Many institutions are pledging to keep fighting. Stanford University leaders, for example, have spoken publicly in support of their researchers and the work of the Stanford Internet Observatory.

As this presidential election year unfolds, psychologists are uniquely poised to help push back against the flurry of falsehoods, van der Linden said. "Psychologists can help bridge the partisan divide by fighting misinformation in ways that aren't so polarizing," such as focusing on decision-making and recognizing manipulation rather than the content of an argument, he added. "Giving people the tools that they need to make better decisions is within our expertise as psychologists."

POSITIVE COMMUNICATION

Still, it's possible to communicate scientific findings to the public without diving straight into the deep end of the misinformation pool. Indeed, there are good reasons to put yourself out there. "People might not appreciate the benefits that come from speaking with the public. When you discuss your work more broadly, it can motivate the research and help you learn things you wouldn't otherwise," Pennycook said.

Communicating with the public isn't something that psychology training programs tend to explicitly teach. But, Van Bavel said, "public communication is a skill. And anyone can work on it to improve that skill."

Meanwhile, the field of psychology would benefit from more people studying misinformation, Pennycook and van der Linden said. Researchers studying intergroup relations, persuasion, belief formation, communication, health behaviors, and any number of other topics can all contribute to the study of how misinformation spreads, why people believe it, and how best to counter it.

"Misinformation poses huge risks to democracy and public health, so if you can find ways in which your research can be applied to elucidate these important questions, why not give it a go?" van der Linden said. "From basic questions about how the brain processes information and why we believe things to intervention research to counter misinformation, psychologists are really well positioned to come up with solutions." ■

APA REPORT FIGHTS BACK AGAINST MISINFORMATION

What can be done to stop misinformation in its tracks? A task force of psychological scientists tackled that question in a new APA consensus statement, *Using Psychological Science to Understand and Fight Health Misinformation*. Developed with support from the U.S. Centers for Disease Control and Prevention, the report describes the latest science and provides recommendations to help scientists, policymakers, media, and the public address misinformation. It provides a blueprint for clinicians engaging in delicate conversations with patients, and a foundation for researchers working to identify the causes of, and solutions for, the epidemic of misinformation.

Compared Rates Lately?

APA Members Get a 20% Discount

Ask About a Cyber Endorsement

Coverage Designed Specifically for Psychologists

- Professional Risk Managers are available to answer questions with no appointment required
- Discounted online Risk Management Courses

- 20% Discount for Members of APA, TPA, and ABPP
- 10% New Business Discount
- 35% New Graduate Discount
- 35% Part-Time Discount
- Many more combinable discounts available

AmericanProfessional.com 1.800.421.6694

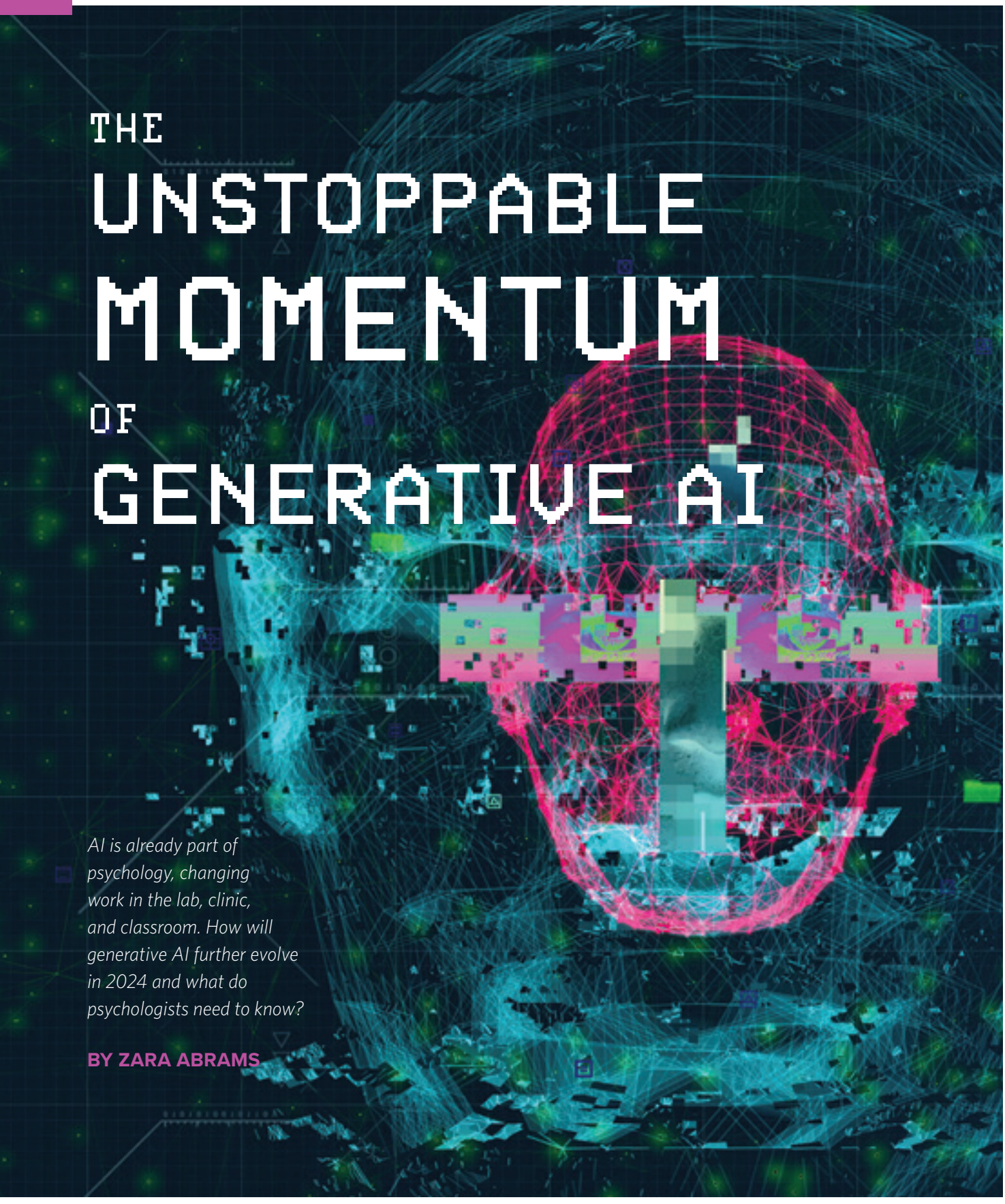
American Professional Agency

LEADERS IN MENTAL HEALTH PROFESSIONAL LIABILITY INSURANCE

AMERICAN PSYCHOLOGICAL ASSOCIATION

Corporate Supporter

THE UNSTOPPABLE MOMENTUM OF GENERATIVE AI



AI is already part of psychology, changing work in the lab, clinic, and classroom. How will generative AI further evolve in 2024 and what do psychologists need to know?

BY ZARA ABRAMS

BLACKDOVFX/GETTY IMAGES

Generative artificial intelligence (AI), which can rapidly produce original text, images, audio, and more, is here to stay. Psychologists are exploring how the new technology can simplify or amplify their efforts—and are increasingly leading efforts to bring behavioral insights into the creation and deployment of generative AI tools.

Within the field, ChatGPT and other AI models are changing the way psychologists teach, conduct research, and diagnose and treat patients. While concern about the ongoing development of generative AI is legitimate, especially given the moratorium proposed by technology developers themselves last year, psychologists should accept AI as a reality and work with rather than against it, said Jessica Jackson, PhD, a licensed psychologist and clinical strategy manager for a mental health startup.

While there are plenty of reasons to be cautious about therapeutic algorithms, for example, they also offer an opportunity to dramatically expand access to mental health care, psychologists say.

"If people can't afford therapy, we can't stop them from logging on to a computer and talking to a chatbot," said Jackson, who is chair of APA's Mental Health Technology Advisory Committee. "We can't control this, so how can we form strategic partnerships that help us embrace and optimize it?"

Psychologists bring a behavioral perspective to the development and rollout of new technologies, producing research insights about how people view AI's competence, credibility, morality, and more.

"Most of the work in the human-technology interaction field is very heavy on technology and very thin on humans," said Kai Chi (Sam) Yam, PhD, a professor of psychology and head of the Department of Management and Organization at the National University of Singapore. "Psychologists are now working to fill the gap on the human side of that equation."

Ultimately, the field can offer a nuanced exploration of new technologies that helps developers, users, and regulators grasp their inherent complexity.

"There are complex trade-offs in AI's potential. It won't be all good or all bad," said Adam Miner, PsyD, a clinical assistant professor of psychiatry and behavioral sciences at Stanford University who studies AI in health care. "Fortunately, psychologists are accustomed to weighing complex trade-offs in their research and clinical work, so we are ready to meet this challenge."

AI IN HIGHER EDUCATION

One way to quantify the impact of AI on a profession—both how it can help and who it threatens to replace—is to break down work into a set of tasks and skills, said Johannes Eichstaedt, PhD, a computational psychologist and an assistant professor at Stanford University. For researchers, many of those tasks can increasingly be automated.

"The truth, whether we want to admit it or not, is that a lot of what we do in the scientific process is quite formulaic," Eichstaedt said.

Specialized generative AI tools, such as Genei, can help with literature searches, literature summarization, and academic writing. ChatGPT can generate items for scales, detect themes in qualitative textual data, and write Python and R code for statistical analyses.

"The key is to figure out how to make GPT function either like a research assistant or like a participant," said Kurt Gray, PhD, a professor of psychology and neuroscience at the University of North Carolina at Chapel Hill who studies how people make sense of emerging technology.

Gray's research shows that the latter—using GPT to replace participants in certain types of experiments—is not only possible, but it could also save experimenters valuable time and resources (*Trends in Cognitive Sciences*, Vol. 27, No. 7, 2023). For example, he and his colleagues tested GPT on 500 moral judgment scenarios and found that its answers correlated nearly perfectly (.95) with human answers. They suggest that AI could be used in pilot studies to refine measures or as an extra layer of evidence to augment results from humans.

"We're not arguing that you never need to ask people anymore, but what are the times when it might make more sense to ask AI?" Gray said.

For teaching psychology, generative AI can simplify a range of time-consuming tasks, from drafting slides, outlines, and exam questions to mentoring trainees on therapeutic techniques. But the technology is also fundamentally changing the learning environment, leaving many educators worried about how to detect cheating and ensure that students are actually learning.

One relatively safe way psychologists can begin using AI tools for therapy is to maintain clinical supervision of patients. For example, patients can use an app to practice cognitive behavioral therapy or dialectical behavior therapy skills between sessions.

"That's a legitimate concern, but we're living in a world where these tools are at our fingertips, so what we teach will ultimately have to change," Eichstaedt said.

For example, students may be able to focus more on higher-level cognitive functions—such as finding a punchy example or deciding how to frame an argument—instead of worrying about the order of sentences in a paragraph, he said.

Because of generative AI's ubiquity, most higher education institutions are trying to embrace it rather than ban it. But research in progress suggests that approach may have unintended consequences. Yam and his colleagues randomly assigned college students to write an essay about a topic they recently learned about or to use ChatGPT to write the essay. Those who used ChatGPT later reported less interest in the topic and less intrinsic motivation to study it further.

"Once college students used ChatGPT to write an essay for a given topic, they found that topic to be less exciting," Yam said. "We find that quite worrying, because allowing the use of ChatGPT may actually be undermining the intrinsic motivation to learn."

CHATBOTS IN THERAPY

In the clinical sphere, psychologists are also proceeding with caution. Generative AI clearly holds potential for automating administrative tasks such as documentation and note-taking. Tools like ChatGPT can also help trainees practice delivering psychological interventions to a simulated patient. And natural language processing tools can provide insights to help licensed clinicians up their game, said Miner.

"Clinicians probably don't want AI telling them what to do, but it might help us find gaps in our training or areas for improvement," he said.

For example, a clinician might respond differently to a patient who mentions self-harm in the last 5 minutes of a session than they would to a patient who mentions self-harm during the first 5 minutes. Based on large data sets of therapist-client interactions, what are positive examples of how to respond? (*npj Mental Health Research*, Vol. 1, 2022)

The biggest open question is whether and how generative AI can help address the shortage of mental health service providers (see page 49), both in the United States and worldwide. Can chatbots safely and effectively deliver therapy?

"The prevalence of mental health issues in America is reaching a critical point," said Scott Wallace, PhD, a clinical psychologist and director of clinical innovation at Remble, a mental health technology company that offers chatbot support and other tools. "With the devastating crisis we're facing, we can't afford to write off promising innovations before fully exploring how they might expand access and improve care."

Chatbots can provide support on day-to-day challenges, such as conflict with a spouse, trouble sleeping, and stress related to work or school. Wallace said using AI to deliver research-backed advice can help reduce the burden on human therapists of providing services.

Mental health chatbots may be useful for more serious concerns, but harm is also possible. Companies have delivered AI therapy without informed consent and perpetuated bias with their algorithms (Obermeyer, Z., et al., *Science*, Vol. 366, No. 6464, 2019).

"If you leave psychologists out of the development process, it's going to be harmful," Jackson said. "Currently, there's no true bridge between technology and psychology, so the people who are building these tools aren't always aware of the ethical issues at play."

One relatively safe way to begin using AI tools for therapy is to maintain clinical supervision of patients. For example, patients can use an app to practice cognitive behavioral therapy or dialectical behavior therapy skills between sessions.

"By thoughtfully integrating AI to augment professionals, but not replace them, we can build on human strengths while benefiting from data-based insights," Wallace said.

See more about the nuance of current AI use in practice on page 52.

AGENTS OF REPLACEMENT

As generative AI continues to permeate society, knowledge of how it impacts individuals, relationships, and societies is suddenly in high demand.

"Soon, we'll have AIs that are super intelligent—in the technical sense, they're better at most things than most people," Eichstaedt said. "They will tutor our children, but they were never

WIPHOP SATHAWIRAWONG/GETTY IMAGES

GENERATIVE AI

"I believe together we can shape AI into a driving force for much needed progress and healing. But we have to be willing to take those first steps."

SCOTT WALLACE, PHD, CLINICAL PSYCHOLOGIST AND DIRECTOR OF CLINICAL INNOVATION AT REMBLE

OLIVIER CHASSIGNOLE/GETTY IMAGES

Buddy, a TED-i robot designed to bridge social interactions with children who are isolated, instructs a student at the Paul Chevalier school near Lyon, France.

designed to be encouraging, understanding, or wise."

Theoretically, those qualities can be fine-tuned, but that requires significant attention to the social, developmental, and identity contexts in which they will be applied, he said.

In religious settings, Yam and psychologist Joshua Jackson, PhD, of the University of Chicago, have shown that people find robots to be equally competent—but less credible—than humans (*Journal of Experimental Psychology: General*, online first publication, 2023). Yam, Gray, and their colleagues have also found that in the workplace, the fear of being replaced by AI is associated with burnout and incivility (*Journal of Applied Psychology*, Vol. 108, No. 5, 2023). Nearly 4 in 10 U.S. workers worry that AI will eventually replace all or most of their job duties, according to APA's 2023 *Work in America* survey.

"The big issue around AI is that these are agents of replacement," Gray said. "We design artificial agents to replace human labor, but when we are confronted with that, we're not always sure about how to act."

What's on the horizon? Eichstaedt points to new multimodal generative AI tools, such as Google's Gemini, that can seamlessly shift between images, text, and other types of data. To keep up with the rapid pace of development and generate research insights that can be quickly applied, Yam said field research—as well as better incentives for cross-disciplinary collaboration—will be key. Engineers often disseminate findings through conference proceedings, for example, while psychologists aim to publish journal articles.

We may even see new subfields geared toward understanding the reasons, rationales, and capacities of AI systems, said Peter Hancock, PhD, DSc, a professor of psychology at the University of Central Florida who has studied human-machine interaction in a variety of contexts. "Machine psychology" could apply the methods, simulations, and analyses long used to scrutinize the human mind to glean insights about how generative AI processes information.

Despite its risks, some psychologists are proceeding with cautious optimism about the potential for AI to improve mental health care and beyond.

"Are there open challenges? Absolutely. But sticking to the status quo isn't working," Wallace said. "I believe together we can shape AI into a driving force for much needed progress and healing. But we have to be willing to take those first steps." ■

FURTHER READING

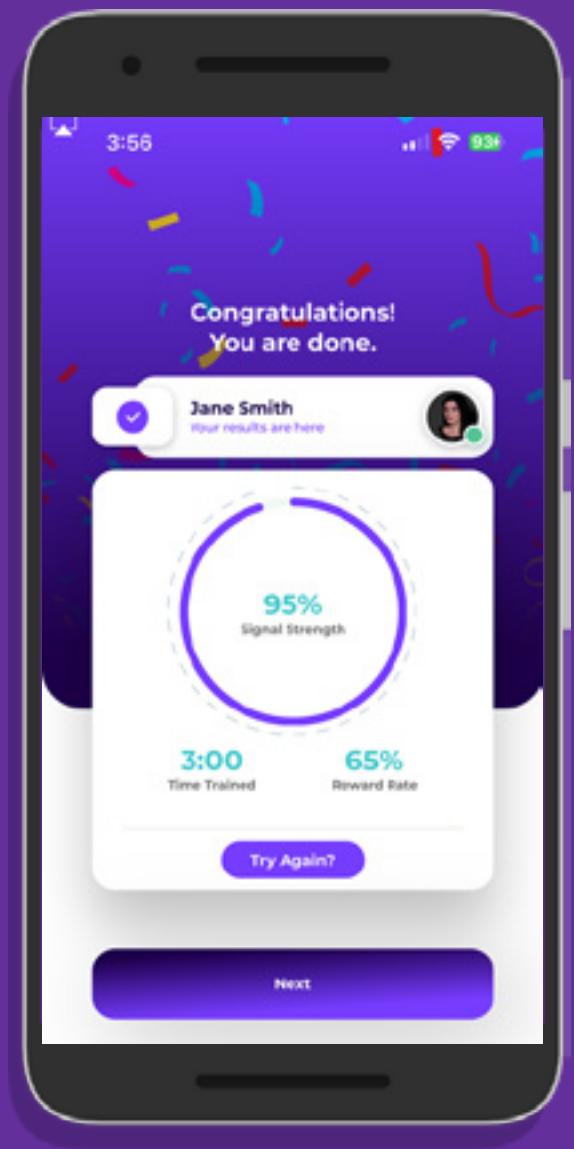
The psychology of social robots and artificial intelligence
Gray, K., et al.
The Handbook of Social Psychology, 6th ed., In press

How to use ChatGPT as a learning tool
Abramson, A.
Monitor on Psychology, June 2023

Advancing psychology in national artificial intelligence strategy
APA, 2023

DIVERGENCE

Neurofeedback anywhere, anytime



- Treat Patients from Anywhere
- Increase Patient Engagement
- Cost-effective Technology
- Tailor Treatment Programs
- Your Choice of Devices
- Amplify Your Impact

https://divergenceneuro.com info@divergenceneuro.com @divergenceneuro

HIGHER EDUCATION IS STRUGGLING

Many of the dramatic changes in society are fueling faculty burnout, high turnover, and even fear among educators

BY ZARA ABRAMS

The COVID-19 pandemic upended the economy and exacerbated concerns about financial stability in higher education. More recently, falling tuition dollars and the looming enrollment cliff are forcing cuts or closures at many institutions, precisely when students need more support than ever. Those entering college today have faced years of erratic schooling and a widespread mental health crisis.

But students are not the only ones struggling. The majority of faculty report feeling burned out because of work: They face their own set of stressors, such as adapting to ChatGPT in the classroom and, for faculty of color, providing extra support for students of color (*Exploring Faculty Burnout through the 2022–23 HMS Faculty/Staff Survey*, APA). Meanwhile, employee turnover at colleges and universities continues to rise (*The CUPA-HR 2023 Higher Education Employee Retention Survey*).

"Workers in higher ed feel like they're being nickeled and dimed, they're being overworked, and they're not being recognized. What better recipe is there to drive people toward other jobs?" said cognitive psychologist Jacqueline Bichsel, PhD, director of research at the College and University Professional Association for Human Resources (CUPA-HR).

In a growing number of states, institutions also face the added pressures of political attacks on academic freedom, tenure, and university governance systems. Faculty are being silenced on subjects ranging from gender identity to reproductive health, while administrators are seeing their decision-making powers seized by politicians.

"What kind of an environment are we creating at these institutions, which have long been based on the idea of free inquiry and academic freedom? It's frightening to think about where we're headed," said Afshan Jafar, PhD, chair and professor of sociology at Connecticut College and cochair of the American Association of University Professors (AAUP) Special Committee on Academic Freedom and Florida.

On top of it all, higher education may mean something fundamentally different today. With growing questions about the value of education, some potential students question whether they should even go to college. At the same time, coming of age amid a pandemic, climate change, and fierce political clashes has left many of today's students uncertain about what lies ahead, said psychologist Kisha Jones, PhD, an assistant professor of global leadership and management at Florida International University.

"What is it like to be motivated, to be excited about your career and excited about the future, when things look so bleak?" she said.

A DARK PLACE

Political battles across the nation have created an increasingly hostile world for academics. Those who speak in support of topics such as vaccination and racial equity have faced harassment and death threats; many are leaving X, formerly known as Twitter, in search of safer forums or taking extra steps to protect themselves, both online and off.

Alongside the routine threats and harassment, academics are also navigating deliberate, state-sponsored attempts to control higher education and dismantle academic systems and structures that have governed U.S. colleges and universities for centuries. New laws passed in Florida, Idaho, Iowa, Mississippi, North Dakota, Oklahoma, South Dakota, Tennessee, and other states limit or prohibit instruction on various subjects, including race, sex, and American history, and even seek to broadly restrict discussing "current, controversial topics" (PEN America Index of Educational Gag Orders, 2023).

"Where I'm located, these laws create a lot of fear among faculty. Often, it's easier to just drop material and

Most faculty report feeling burned out by work stressors, including adapting to ChatGPT in the classroom and heavy course loads. Many faculty of color experience additional burnout from providing extra support for students of color.

IMAGE SOURCE/GETTY IMAGES; HILL STREET STUDIOS/GETTY IMAGES

avoid a controversial topic," said David Strohmetz, PhD, chair and professor of psychology at the University of West Florida, who recently chose to exclude a section on sexuality and gender identity from one of his psychology courses due to concerns about the political climate.

A new Florida law seeks to undermine tenure by reviewing tenured professors' research and teaching at least every 5 years, while other legislation in the state weakens teachers' unions and strengthens the role of politicians in higher-ed decision-making. (Several other states, including Texas, Louisiana, and Iowa, have also proposed legislation that aims to limit or end tenure.) These actions amount to a coordinated attack that could ultimately lead to authoritarian control of the state's education system, said Jafar.

"When you're attacking governance at the same time that you're attacking the ideals of academic freedom and free inquiry, you're heading to a really dark place in academia, where people now have no means to fight the changes that are coming their way," she said.

The laws are already triggering "brain drain" in the state, with more than one-third of the faculty at New College of Florida departing since Governor Ron DeSantis began his overhaul of the school. And nearly one-third of faculty in Florida, Texas, Georgia, and North Carolina said they are actively looking for jobs in other states, according to an August 2023 AAUP survey of 4,250 faculty members (AAUP national release, Sept. 2023).

"Those who are left behind are now forced to figure out how to survive in this environment," which is likely to further diminish the quality of teaching and research in those states, Jafar said.

Some faculty have observed that students from the so-called pandemic generation lack basic skills such as time management that are essential for success in college and may have a shakier academic foundation than students who had a typical high school experience.

FOTODUETS/GETTY IMAGES

THE ACADEMIC GAP

The instability of recent years has also left students struggling—and that affects everyone on campus. Some faculty have observed that students from the so-called pandemic generation lack basic skills such as time management that are essential for success in college and may have a shakier academic foundation than students who had a typical high school experience.

"There's concern about the impact of the academic gap after losing those 3 years. Is this a blip, or has education at the secondary level been fundamentally changed?" Strohmetz said.

Student mental health also remains in crisis. Data from the Healthy Minds Study, which surveys tens of thousands of students across the nation each year about mental health, shows a slight positive change during the 2022–23 academic year. But 14% of students still reported considering suicide, and more than 40% screened positive for clinically significant symptoms of depression. Some populations, including LGBTQ+ students, report even higher rates of mental health problems (*The Healthy Minds Study: 2022–2023 Data Report*).

Those concerning figures are impacting academic institutions more broadly, said Sarah Lipson, PhD, an associate professor in Boston University's School of Public Health and principal investigator of the Healthy Minds Study. Faculty are changing the way courses are taught and working to connect students to services before they are in crisis. Administrators are rolling out public health campaigns, counseling services, and new support systems. Those changes are welcome, Lipson said, but can be taxing on institutions already strained for resources.

"The urgency around student mental health has infiltrated so many different

aspects of higher education," she said.

Meanwhile, schools are scrambling to adapt to a new challenge: how to handle artificial intelligence tools, such as ChatGPT, in the classroom. In some cases, that requires reimagining coursework to preclude cheating and to help students learn to use ChatGPT to enhance—rather than replace—their own critical thinking.

"We have to take on the challenge as educators to find a way to weave that into assignments, so we're preparing students for a workplace where there will be a shift in the skills needed to succeed," said Jones, of Florida International University.

Those shifting sands put pressure on the glue that holds higher education together: its workforce. In a 2022–23 Healthy Minds survey of faculty and instructors, 64% of those questioned said they felt burned out because of work (*Exploring Faculty Burnout through the 2022–23 HMS Faculty/Staff Survey*, APA). Faculty who are women, gender minorities, or people of color tend to report even higher rates of burnout. A 2023 APA report found that faculty of color are expected to do extra "invisible labor," such as mentoring students of color and educating their White colleagues about diversity (*APA Task Force Report on Tenure and Promotion for Faculty of Color*, 2023).

For staff, higher education is steadily becoming an undesirable place to work. Turnover during the 2022–23 school year was the highest it has been since CUPA-HR began tracking it 7 years ago (*The CUPA-HR 2023 Higher Education Employee Retention Survey*). Only about half of employees reported being recognized regularly for their work, and few received raises on par with inflation. The majority want flexible or hybrid work arrangements, but only about one-third receive them.

"When retention efforts are nonexistent, turnover is going to remain high," said Bichsel. "Higher education institutions need to start positioning themselves as employers of choice, or they'll be left only with candidates and employees who cannot find something better—those who have fewer qualifications, less experience, or cannot relocate for other reasons."

XAVIERARNAU/GETTY IMAGES

As colleges and universities navigate the stormy seas of financial uncertainty, workforce instability, and technological change, it's important for faculty and administrators to stay focused on the group at the center of it all: students.

FOCUS ON STUDENTS

Since the pandemic began, the financial model of higher education has been put to the test. Demand has dropped, but schools have struggled to cut costs without compromising quality.

That puts higher-ed institutions in a tight spot as they fight to survive and adapt. Some have moved toward a corporate culture in senior leadership, but Jafar warned that such a shift can also put colleges and universities at risk. Traditional academic governance systems—which move more slowly and typically include additional checks and balances—have an important function: protecting academic institutions from outside influence, including political attacks on academic freedom.

As colleges and universities navigate the stormy seas of financial uncertainty, workforce instability, and technological change, Jones highlights the importance of staying focused on the group at the center of it all: students.

"Younger generations have completely different concerns than we do. Do they have a chance to contribute to society? Will there even be a society for them to contribute to?" she said. "It's important to recognize the impact that will have on everything in academia, from enrollment to engagement to what people choose to study." ■

FURTHER READING

Academic independence under fire
Abrams, Z.
Monitor on Psychology, 2023

How to use ChatGPT as a learning tool
Abramson, A.
Monitor on Psychology, 2023

Hopeful despite headwinds: A survey of presidents
Lederman, D.
Inside Higher Ed, 2023

Higher ed's ruinous resistance to change
Rosenberg, B.
The Chronicle of Higher Education, 2023

Is it time for tenure to evolve?
Dance, A.
Nature, 2023

Real answers for what's wrong.

Ending the cycle of substance use disorder is not easy, but it is possible when you know what to look for.

McLean specializes in teaching people the skills they need for sustained recovery from drugs and alcohol while also addressing the underlying challenges—such as depression or anxiety—that often go undetected.

No matter what led to your patient's addiction, McLean's personalized care can help lead them out.

mclean.org/addiction

Mass General Brigham
McLean

BEST HOSPITALS
U.S.News & WORLD REPORT
PSYCHIATRY
2023-2024

POLICYMAKERS ARE TAKING AIM AT WOMEN AND LGBTQ+ INDIVIDUALS

Alarming policy trends are affecting people's mental health, but psychologists are fighting back

BY REBECCA A. CLAY

A barrage of new policies is targeting the most intimate parts of the lives of those living in the United States—their reproductive choices, sexual orientations, and gender identities. And these policy developments are having a severe impact on the mental health of those targeted, say psychology researchers and practitioners.

Individuals who are unable to obtain an abortion are more likely to experience worse mental and physical health, increased poverty, and prolonged contact with abusers, for example. LGBTQ+ youth are facing greater stigma, increased mental health problems, and less access to medical care.

The U.S. Supreme Court's 2022 decision to overturn the constitutional right to abortion was a high-profile event. And since then, 21 states have put in place additional restrictions on abortion or outlawed the procedure almost altogether, and five more have enacted restrictions or bans that are still in legal limbo. Now some lawmakers have set their sights on outlawing gender-affirming care for transgender youth; more than 35% of transgender young people now live in states that have passed bans, according to the Human Rights Campaign. Following Florida's lead, some states are also trying to enact "Don't Say Gay"–style policies that outlaw even the mention of LGBTQ+ people—such as books showing different types of families—in schools.

What all these policies share: the issue of bodily autonomy and individuals' right to make their own decisions.

The mental health repercussions of these policies not only affect those targeted directly but also ripple outward. Parents are worried about their children. Physicians and other health care providers are no longer able to provide the care patients need. Some survey data even suggest that people are deciding not to have children for fear of being denied emergency care during pregnancy. And relatives, friends, and acquaintances are concerned about those they love.

The individuals affected by these policies may find it increasingly difficult to get the mental health care they need, too. As the legal environment becomes more fraught, psychologists may become wary of discussing health care services like abortion or gender-affirming care with their patients. But psychologists are already fighting back, both within the therapy office and beyond: They are empowering patients to advocate for themselves and fighting misinformation with science-based evidence.

THE WASHINGTON POST/GETTY IMAGES; PROBAL RASHID/GETTY IMAGES

SOPA IMAGES/GETTY IMAGES

Restrictions or bans on abortion and bans on gender-affirming care for transgender youth have severely altered bodily autonomy and the right to make decisions for American women and LGBTQ+ individuals. Data current as of December 2023.

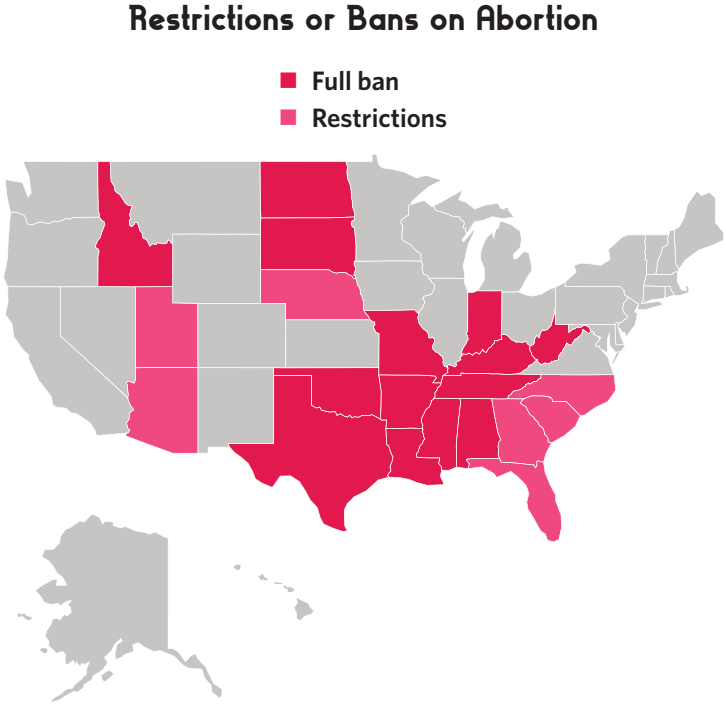
TARGETING THE MOST VULNERABLE

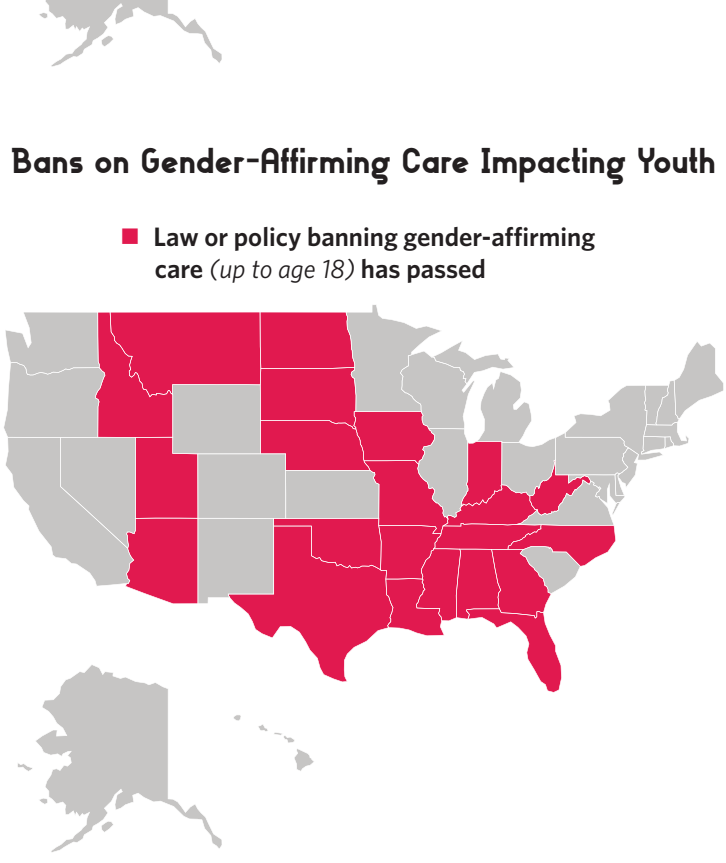
Many of these new policies claim to protect individuals' mental and physical health but have the opposite impact. Take abortion. "The anti-abortion rhetoric continues to claim that having an abortion harms pregnant people," said Antonia Biggs, PhD, an associate professor of obstetrics/gynecology and reproductive sciences at the University of California, San Francisco. "But we know that abortion restrictions can force people to carry unwanted pregnancies to term, which harms people's mental and physical health, increases their chances of living in poverty, and lowers their aspirations for the future."

Biggs points to the landmark Turnaway Study, which for 5 years tracked women who were denied abortions. The researchers found that having an abortion did not harm women's well-being, said Biggs, who led the study's mental health analysis. But being denied an abortion was harmful to both women and their families, the study found. Compared with those who got the abortions they wanted, those denied faced increased poverty, continued contact with abusive partners, and serious health problems. Some women even died in childbirth. The next generation suffered, too, with existing children suffering worse developmental outcomes and children of unwanted pregnancies experiencing poorer maternal bonding.

Forced childbirth will hit people of color especially hard. Black women, for example, have a maternal mortality rate nearly triple that of White women, according to the U.S. Centers for Disease Control and Prevention.

That differential policy impact is by design, said Sara McClelland, PhD, an associate professor of psychology and women's and gender studies at the University of Michigan, who studies abortion policy's racist and sexist underpinnings. It's not for nothing that policies in states like Texas echo slavery-era policies about





Just hearing about potential laws banning discussion of LGBTQ+ people at school considerably worsened students' mental health.

bodily autonomy and travel restrictions, she said. The bounty hunter provision in Texas's SB8 law, which allows citizens to sue people who help patients get abortions, parallels the practice in the antebellum South of empowering armed private citizens to police the movement of enslaved people and recapture those who escaped, for instance. "Everyone becomes an agent of the state," said McClelland.

Research by McClelland and colleagues has confirmed that racist, sexist attitudes rooted in stereotypes about Black women's sexuality and motherhood predict opposition to abortion (*Sex Roles*, Vol. 87, 2022). In another study, McClelland and colleagues found that even before the *Dobbs* decision, participants described abortion as violating the law, gender norms, and religious doctrine and deserving of such punishments as fines, jail time, and forced sterilization (*Psychology of Women Quarterly*, Vol. 47, No. 1, 2022).

Anti-LGBTQ+ policies are having a similarly dire impact on well-being in the LGBTQ+ community, especially among youth. In Florida, for example, the state's Board of Education declared that the material on sexual orientation and gender identity within the Advanced Placement (AP) Psychology course violated state law (See "Education under siege," *Monitor on Psychology*, November/December 2023). Although an outcry from APA and other advocates resulted in the state reversing its decision, some schools canceled the class anyway and other states are looking for ways to ban teaching or even discussion of such topics in classrooms.

These efforts to censor school curricula aren't the only policies affecting LGBTQ+ youth. According to The Trevor Project, an unprecedented 633 anti-LGBTQ+ bills were active as of September, with 53 already enacted into law. These policies—which purport to protect children—are instead taking a toll on young people's mental health. In The Trevor Project's 2023 National Survey on the Mental Health of LGBTQ+ Young People, nearly 1 in 3 LGBTQ+ 13- to 24-year-olds said their mental health was poor most or all the time because of such policies, regardless of whether they lived in a state where these policies are being debated or implemented.

Almost two-thirds of respondents said that just hearing about potential laws banning discussion of LGBTQ+ people at school worsened their mental health considerably. "Sometimes the bills don't get passed, but that doesn't mean there's not an impact on young people," said Myeshia Price, PhD, who was the principal investigator of the survey and is now an associate professor of counseling and educational psychology at Indiana University. "Their very existence is being debated on a huge platform."

School-related policies, such as not allowing youth to choose their pronouns, participate in sports, or use the bathrooms or locker rooms they want, can be especially harmful given how much time kids spend at school, added Price, noting that fewer than 40% of respondents to the Trevor Project survey described their homes as LGBTQ-affirming. "It could be that school is the only place where their identity is being affirmed," Price said.

Policymakers are now singling out transgender and gender-diverse youth for particular attention. For Roberto Abreu, PhD, an assistant professor of psychology at the University of Florida, such policies are part of a backlash against marriage equality and other progress the LGBTQ+ community has made in recent years. "Their larger goal is to erase LGBTQ+ people, and they are predominantly targeting trans youth and their families," said Abreu, adding that some policymakers are even trying to define gender-affirming care for young people as child abuse. "They want us to be in constant fear, wondering 'What next?'"

Policies banning young people's access to gender-affirming care are particularly harmful, said Abreu. In one study he and colleagues conducted, parental figures of transgender and gender-diverse youth reported that such policies had increased children's depression, suicidality, and gender dysphoria; increased stigma; and decreased safety and access to medical care (*Journal of Family Psychology*, Vol. 36, No. 5, 2022). In another study, Abreu and his colleagues found that these policies left parental figures feeling fearful, anxious, and angry about the violation of their rights (*Psychology of Sexual Orientation and Gender Diversity*, Vol. 9, No. 4, 2022). Some spoke of relocating to new states so their children would be safe.

As Abreu's findings suggest, the impact of all these policies goes beyond the specific groups targeted.

Abortion bans, for instance, may be making many rethink parenthood. A recent poll by the nonprofit organization All In Together found that more than a third of women ages 18 to 39 said they or someone they knew had decided not to get pregnant because of concerns about being unable to manage pregnancy-related medical complications, even in states where abortion remains legal. In addition to worrying about dying if a pregnancy goes wrong and abortion is denied, would-be parents are worried about the growing trend toward criminalizing miscarriages, said Julie Bindeman, PsyD, who codirects Integrative Therapy of Greater Washington and specializes in reproductive psychology. "In certain states, being pregnant is like Russian roulette," she said.

The mental health of obstetrician/gynecologists, emergency room physicians, and other health care providers is

MEDIANEWS GROUP/LONG BEACH PRESS-TELEGRAM/GETTY IMAGES

JON CHERRY/GETTY IMAGES

Psychologists are fighting back to protect their patients and themselves, citing APA Council of Representatives resolutions, supporting patients in speaking out, and engaging in advocacy and legislation themselves.

also suffering, Bindeman said. "If they are dealing with miscarriages or pregnancy complications, they can't do what they are trained to do and know is the right thing to do," she said, adding that the result in states like Idaho has been a mass exodus of physicians and medical trainees. "It's a moral injury."

While there are signs of hope—with some states making themselves into safe havens for people seeking abortions or gender-affirming care—the sociopolitical context around reproductive and LGBTQ+ rights may get even worse, psychologists warn. Advocates worry that access to birth control and gender-affirming care for adults may be under threat, for instance. In 2022, for example, 195 policymakers voted against the Right to Contraception Act, which would guarantee access to birth control. On the LGBTQ+ front, Missouri has already put in place major restrictions on gender-affirming care for adults as well as young people, with other states making moves to erode access for adults.

As all these policies are damaging mental health, it may be increasingly difficult to find good mental health care, warned Shirley Higuchi, JD, associate chief of professional practice for justice, legal, and state advocacy at APA. In addition to the shortage of mental health practitioners in some areas, the chilling effect of such policies could affect psychologists' willingness to discuss topics like abortion or gender-affirming care because of uncertainty about risks.

While psychologists have not yet been targeted the way medical providers of abortion or gender-affirming care have, Higuchi said, that day may come in a few states. Psychologists could face insurers unwilling to cover mental health services related to reproductive or LGBTQ+ issues. Others might fear the risk of being accused of aiding and abetting patients seeking services that have been banned. "Everything is in flux right now," said Higuchi, adding that APA Services has developed resources to help psychologists practice safely with patients affected by abortion laws (see Further Reading) and is developing similar resources around gender-affirming care laws. "There's just a fear that psychologists could become collateral damage."

ADVOCATING FOR BETTER POLICIES

Psychologists are fighting back to protect their patients and themselves. In 2022, APA's Council of Representatives reaffirmed APA's denunciation of abortion restrictions and its commitment to reproductive justice. In 2020, the council issued updated resolutions opposing discriminatory LGBTQ+ policies. Having the backing of APA and other organizations makes it easier to share evidence-based messages and makes it less scary to speak out, said Laura Kuper, PhD, ABPP, a pediatric psychologist who works on a multidisciplinary team that has historically provided medical treatment for transgender youth.

Individual psychologists can help by empowering patients to speak out, said Antoine L. Crosby, PhD, vice president for professional affairs at the D.C. Psychological Association and founder of Affirmative Spaces Psychological Services, a practice that primarily serves LGBTQ+ people of color. Crosby helps his patients find ways to counter an ever-increasing sense of what they describe as "impending doom," in whatever way works best for them. "Some are out protesting. Some write letters. For some, the call for advocacy is too much of an ask because of all the traumas they're dealing with. Some are tired of fighting to simply exist as human beings," said Crosby. "It's about being attuned to yourself and what you can handle."

Psychologists are also taking action beyond the therapy office.

For example, Megan Mooney, PhD, a child and adolescent psychologist, is currently a co-plaintiff in a lawsuit in Texas challenging the restrictions there. Mooney provides therapeutic services treating a wide range of concerns, including affirming care for LGBTQ+ youth and their families.

Kuper and her colleagues have developed a menu of advocacy ideas that includes collaborating with psychological associations, promoting evidence-based information via traditional and social media, and getting involved in political advocacy at all levels, from school board meetings to state legislatures and Congress (*Clinical Practice in Pediatric Psychology*, Vol. 10, No. 3, 2022). "Mental health providers can play an important role … since our licenses are not directly at stake," said Kuper. "It can be harder for physicians in some contexts, so we can step in and help share messages and be advocates," said Kuper.

"Just knowing that progress isn't linear gives me hope," said Kuper. "Big picture, I try to stay optimistic knowing that, in general, society's views are changing and becoming more supportive." ■

FURTHER READING

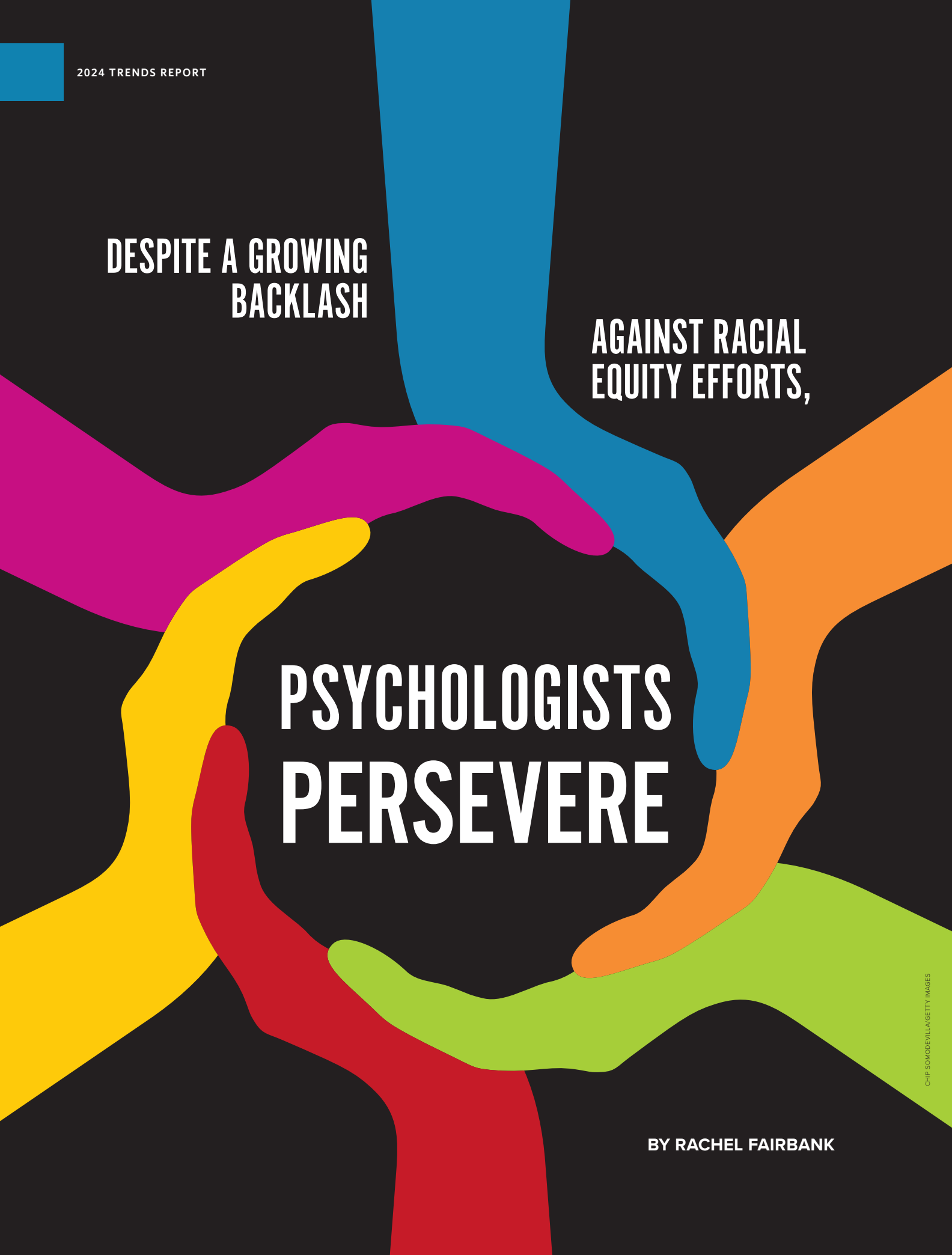
Resources for grassroots and state-level advocacy on LGBTQ+ issues
APA and Div. 44 (Society for the Psychology of Sexual Orientation and Gender Diversity), 2023

Frequently asked questions about abortion laws and psychology practice
APA Services, 2022

Subverting the mandates of our methods: Tensions and considerations for incorporating reproductive justice frameworks into psychological science
Avery, L. R., & Stanton, A. G.
Journal of Social Issues, 2020

When the political is professional: Civil disobedience in psychology
Flynn, A. W. P., et al.
American Psychologist, 2021

DESPITE A GROWING BACKLASH AGAINST RACIAL EQUITY EFFORTS, PSYCHOLOGISTS PERSEVERE



CHIP SOMODEVILLA/GETTY IMAGES

BY RACHEL FAIRBANK

During the past year, many private industry and public institutions have cut equity, diversity, and inclusion (EDI, also referred to as DEI) funds and positions, leaving psychologists who filled many of these roles—and especially the racial equity work they have done—in limbo. In addition to these challenges, there have also been legislative battles, both at state and national levels, to undermine racial equity efforts. Recent developments such as the Students for Fair Admissions v. Harvard decision by the Supreme Court of the United States (SCOTUS), which eliminated the use of race-based affirmative action in college admissions decisions, and efforts by state legislatures to pass anti-EDI laws have created a number of legal, financial, and social roadblocks for those who are doing the work to create a more just and equitable society.

"This has never been easy work, but this is a particularly hard climate right now to be fighting this fight," said Brooke Vick, PhD, a social psychologist and the chief diversity officer and associate provost for equity and inclusion at Muhlenberg College in Allentown, Pennsylvania. "It's particularly hard to do this work against forces that feel big and out of your control."

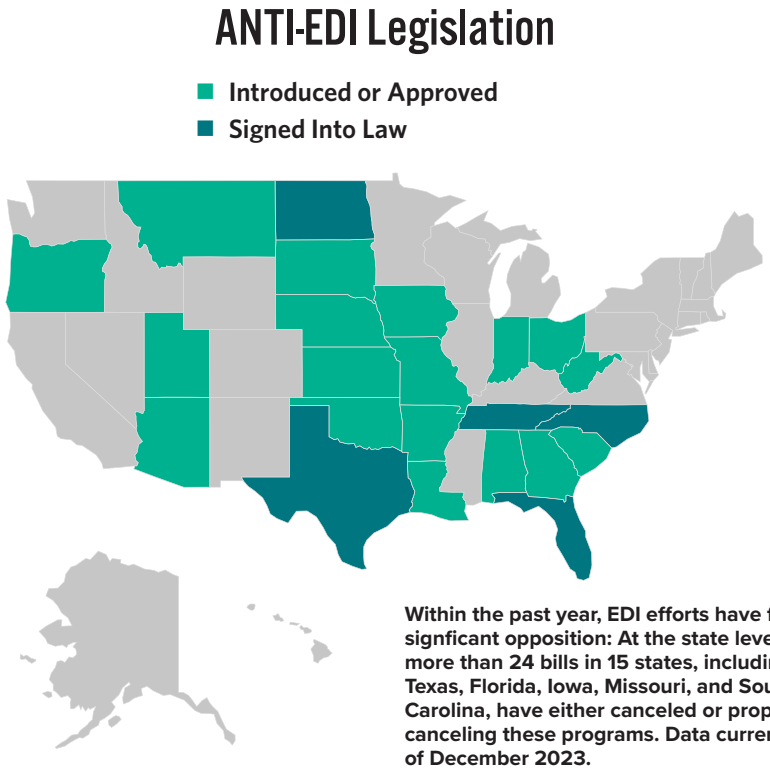
ANTI-EDI LEGISLATION

Within the last year, EDI programs have faced a significant number of legislative efforts aimed at either undermining or eliminating their endeavors. At the state level, more than 24 bills in 15 states, including Texas, Florida, Iowa, Missouri, and South Carolina, have either canceled or proposed canceling EDI programs. This includes Florida Governor Ron DeSantis announcing he would block EDI programs at state colleges and Texas Governor Greg Abbott signing a bill banning EDI offices and initiatives at higher education institutions.

Some of these bills have passed into law, while others are still being debated. However, even if these bills never become law, the damage may already have been done. "There are still open questions about whether the law even needs to be passed," said Skyler Jackson, PhD, an assistant professor of social and behavioral sciences at Yale School of Public Health, where his work focuses on the ways social identities such as race, gender, and sexual orientation influence mental health and well-being. "Your identity or social group becoming a high-profile controversial topic that is discussed on the news, in your classroom, or in your home, that can be enough to lead to a feeling of isolation, alienation, and stress."

More than 3 years after summer 2020, when many companies and public institutions made pledges to increase racial diversity in the wake of the murder of George Floyd, the story on the ground is far less optimistic than what many had hoped for. "There's two different sides," said Courtney Bryant Shelby, PhD, an organizational psychologist and founder of Simply You Solutions, LLC. "DEI has fallen off in some places, and in other places, companies are buckling down and saying, 'It's a part of our values, so we're here for the long haul.'" As Shelby notes, a lot of chief diversity officers and EDI employees are losing their jobs after funding cuts or are quitting because of burnout. For example, Hollywood recently saw an exodus of six EDI leaders, from companies such as Netflix, Disney, and Warner Bros. Discovery, owing to a mixture of company restructuring and voluntary resignations.

For those who are still in EDI roles, the current backdrop of anti-EDI legislation is making these jobs much harder, as



Within the past year, EDI efforts have faced signficant opposition: At the state level, more than 24 bills in 15 states, including Texas, Florida, Iowa, Missouri, and South Carolina, have either canceled or proposed canceling these programs. Data current as of December 2023.

many find themselves having to navigate a very fine line—one that ensures compliance with the law while also finding ways of achieving their goals—with far fewer resources than needed. "It is having a chilling effect on the implementation of new ideas," Vick said. "A lot more time and resources are being spent in a way that is not advancing our goals."

Even within this context, there is still cause for hope, as these laws do not affect equity initiatives by private companies, nor do they explicitly outlaw certain types of efforts, such as strategies to increase the racial diversity of an applicant pool. However, "it's making people nervous that there's a group that will come for [their EDI efforts] next," Shelby said.

SCOTUS DECISION

Although the full impact of the SCOTUS decision banning race-based affirmative action in college admissions will only be realized years down the road, similar state measures foreshadow the results. One example is Proposition 209, passed in California in 1996, which made it illegal to use race, ethnicity, or sex as a criterion for admissions to state schools. As a result, the percentage of underrepresented minorities dropped at many University of California campuses, including UC Berkeley and UCLA (Bleemer, Z., *Affirmative Action, Mismatch, and Economic Mobility after California's Proposition 209*, 2020).

"Based on what happened in California after Prop. 209, we can expect to see, across the board, less diversity at our higher education institutions," said Cynthia Pickett, PhD, a social psychologist and the chief diversity officer at Cal Poly Pomona. "I'm expecting that there will be a backslide."

In the absence of affirmative action since the passing of Proposition 209, schools in California have devised other strategies for increasing diversity; however, these efforts tend to be less targeted and less effective. For example, although universities cannot make admissions decisions based on race, they can try to diversify the applicant pool, and they can factor major life experiences, such as experiencing adversities because of race, into application decisions. Such efforts can help increase the diversity of a campus, but are not quite as effective as the use of affirmative action.

If the proposed anti-EDI legislation does pass, research suggests that it can affect the physical and mental health of the people it targets. "When laws are introduced that attack or undermine the dignity of a population, it sends a message to them that they don't matter, that their rights might be taken away," Jackson said. "That can elevate stress, and that, over time, if chronic and not adequately coped with, can undermine their mental health."

THE ONGOING ROLE OF PSYCHOLOGISTS

In this particular area, psychologists are uniquely situated to continue making progress, especially through clinical expertise and research.

Whether it is finding ways to support individuals who are facing the mental and physical toll of being stigmatized, coming up with effective strategies for increasing access to historically underrepresented groups, carrying out research to understand the factors leading to polarization, or working with legislators to create more equitable laws, psychologists possess essential skills that can further EDI efforts.

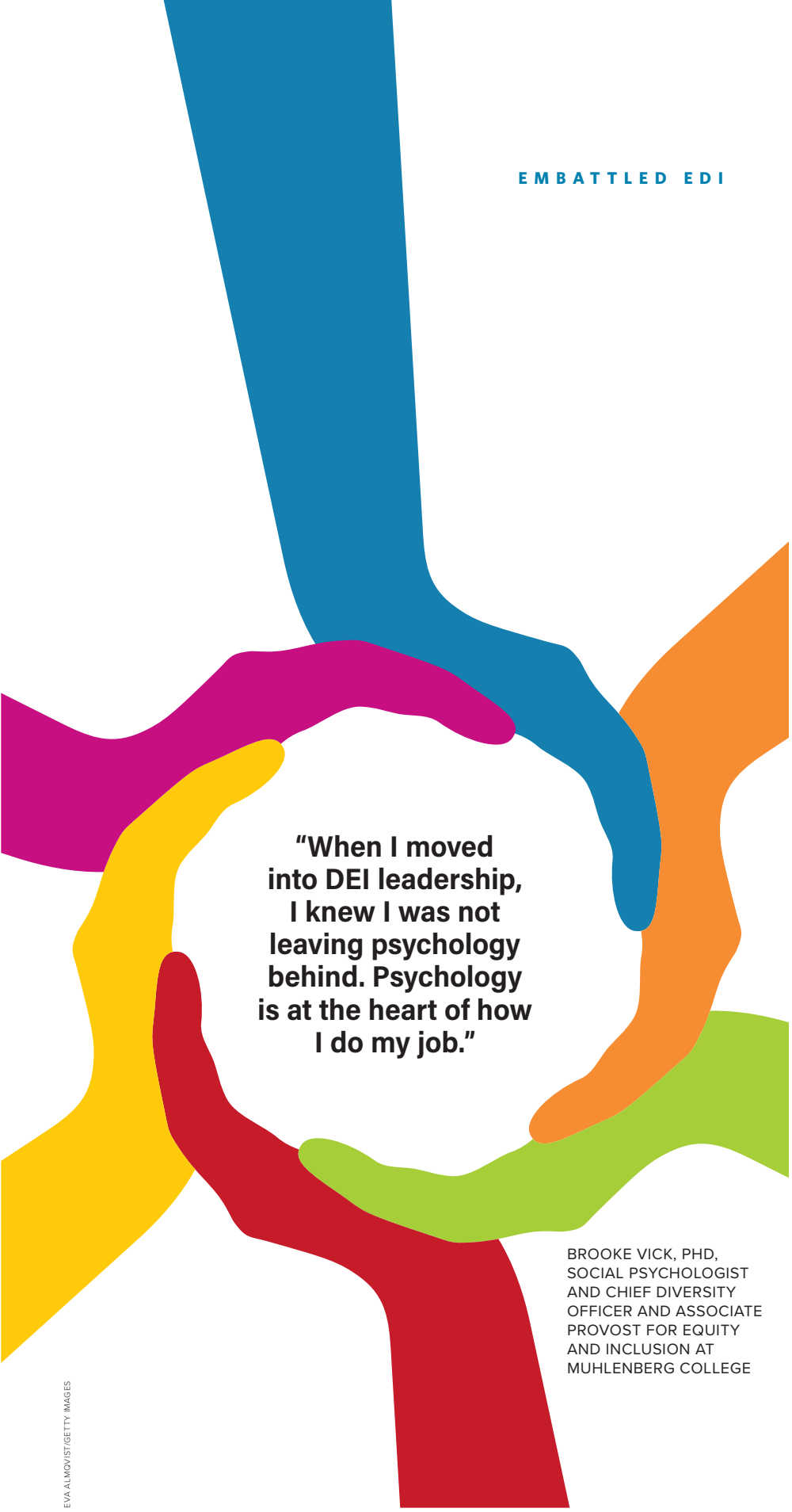
One major skill includes applying clinical expertise to the practice of racial equity work, which is often emotionally fraught. "Psychologists are experts at thinking about what it takes to create a safe place for people to explore and talk about things that are difficult, that are emotional, and that they aren't encouraged by society to talk about, and these are the precise skills that are sorely needed to do effective DEI work," Jackson said. "This is an area where psychology thrives."

Another major skill is the broader practice of researching effective strategies for creating a more racially equitable societal framework. "One critical role that psychologists can play, in the long term, to secure the role of diversity and inclusion work in the fabric of our society, is to improve the science and the scientific rigor that shows DEI work is safe, [is] effective, and leads to a better society for all of us," Jackson said. "Science is not going to save us alone. However, I do believe that the lack of good science is an additional vulnerability, and it is a place where psychologists are uniquely positioned to contribute."

Some examples of researchers who are doing this crucial work are Kimberly Rios, PhD, at the University of Illinois Urbana-Champaign, who studies how people respond to threats to their social and personal identities, with a particular focus on majority versus minority identity, and Mark Hatzenbuehler, PhD, at Harvard University, who studies the effects of structural stigma, such as racist policies.

Rios, who runs the Conformity, Attitudes, Threat, and Stereotypes (CATS) Lab, is studying the backlash against EDI initiatives. "A lot of my own research looks at why members of dominant groups feel threatened by diversity," said Rios. "These different sources of threat that dominant group members might feel are good predictors of eventual backlash" (*Personality and Social Psychology Review*, Vol. 26, No. 4, 2022).

These threats can include practical concerns about losing resources, such as jobs, promotions, or educational opportunities. They can also be intangible, such as feeling left out of the conversation or failing to become invested in EDI efforts because of a lack of connection. "Dominant group members often perceive that discussions of diversity are not about them at all," Rios said. "That, in and of itself, can



EVA ALMQVIST/GETTY IMAGES

BROOKE VICK, PHD, SOCIAL PSYCHOLOGIST AND CHIEF DIVERSITY OFFICER AND ASSOCIATE PROVOST FOR EQUITY AND INCLUSION AT MUHLENBERG COLLEGE

feel threatening." Researching the ways in which members of the dominant groups feel threatened by EDI initiatives can help lend insight into why the backlash is happening, while also suggesting strategies for lessening the perceived threats.

Despite the backlash against racial equity funding and initiatives, psychology as a field and psychologists as individuals continue to persevere in creating a more diverse and inclusive society. "When I moved into DEI leadership, I knew I was not leaving psychology behind," Vick said. "Psychology is at the heart of how I do my job." ■

FURTHER READING

State-level immigration and immigrant-focused policies as drivers of Latino health disparities in the United States
Philbin, M. M., et al.
Social Science & Medicine, 2018

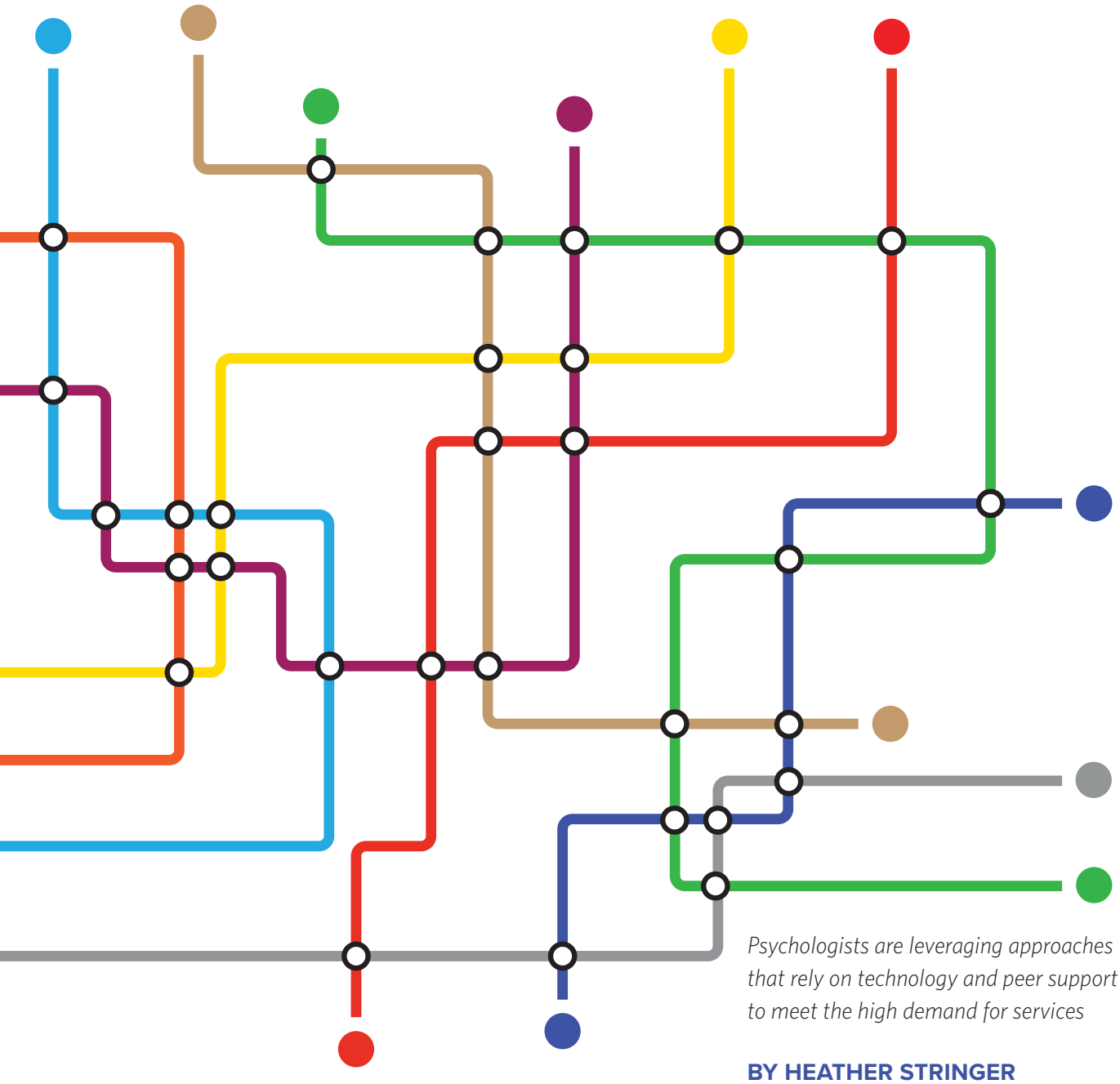
Structural racism and myocardial infarction in the United States
Lukachko, A., et al.
Social Science & Medicine, 2014

Stigma as an unrecognized determinant of population health: Research and policy implications
Link, B., & Hatzenbuehler, M. L.
Journal of Health Politics, Policy and Law, 2016

Taking a "multiple forms" approach to diversity: An introduction, policy implications, and legal recommendations
Rios, K., & Cohen, A. B.
Social Issues and Policy Review, 2023

Multiculturalism and colorblindness as threats to the self: A framework for understanding dominant and non-dominant group members' responses to interethnic ideologies
Rios, K.
Personality and Social Psychology Review, 2022

Increasing Pathways to Access Mental Health Care

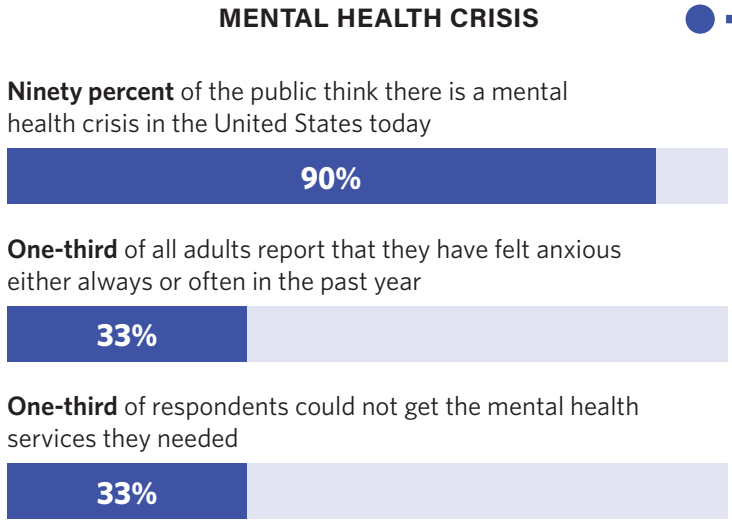


Psychologists are leveraging approaches that rely on technology and peer support to meet the high demand for services

BY HEATHER STRINGER

SVETLOZAR HRISTOV/GETTY IMAGES

Ninety percent of the public think there is a mental health crisis in the United States today, with half of young adults and one-third of all adults reporting that they have felt anxious either always or often in the past year, according to a 2022 survey conducted by the Kaiser Family Foundation and CNN. One-third of respondents could not get the mental health services they needed. When asked about the specific barriers to accessing care, 80% cited cost and more than 60% cited shame and stigma as the main obstacles. The shortage of mental health providers is also prohibitive, with 60% of psychologists reporting no openings for new patients, according to APA's 2022 *COVID-19 Practitioner Impact Survey*.



Mental health providers throughout the country share a sense of urgency to find new ways to meet the high demand for services, and innovators are exploring interventions that diverge from traditional therapy models. The creative approaches include forms of support that require less time commitment from individuals, can be offered through digital devices, or both. Clinicians and researchers are seeing the benefits of these strategies in settings such as community clinics and college campuses, where psychologists experience a duty to serve and patients are open to exploring new options to access help.

"The lack of access to mental health care is an equity issue," said Martyn Whittingham, PhD, a licensed psychologist in Ohio who developed a brief group therapy intervention. "Too often people from marginalized communities struggle to access quality psychotherapy, and these innovative strategies can provide support to many more people."

DIGITAL INTERVENTIONS

The use of mental health apps continues to skyrocket. Certain apps, such as digital therapeutics, can cost between $300 and $1,500 per year and are typically not covered by insurance. Psychologists are advocating at the state and federal level for health insurance organizations to cover the fees. Even though digital therapeutics have significant potential, psychologists are also "still figuring out how to use these tools in the context of clinical workflows," said Stephen Schueller, PhD, an associate professor of psychology at the University of California, Irvine. "Evidence suggests that people benefit most from digital therapeutics when the apps are used in conjunction with some form of human support." People may need coaching to troubleshoot technical problems and check-ins to see if symptoms are improving, he said. (See more about the use of digital therapeutics within clinical practice on page 49.)

Digital therapeutics could play an important role in providing support for underserved communities—specifically, people who speak languages other than English. But most mental health apps are only available in English. The Latinx community represents the largest non-White community in the United States, yet only 14.5% of mental health apps studied in a recent literature review had Spanish-language operability (Muñoz, A. O., et al., *Frontiers in Digital Health*, Vol. 3, 2021).

Schueller recently launched a study using a digital therapeutic called SilverCloud that offers cognitive behavioral therapy skills and practice exercises to help people address anxiety, depression, insomnia, and other issues. His team is using the Spanish-language version and training Spanish-speaking laypeople from the community to coach monolingual Spanish-speaking patients to use the app effectively. Schueller's team is exploring how the addition of human support to the SilverCloud intervention impacts clinical outcomes and engagement with the app and how to best integrate this

digital therapeutic into care delivery.

Jessica Schleider, PhD, an associate professor of medical social sciences at Northwestern University in Chicago, has been studying interactive digital tools that allow social media users to access single-session interventions that could be completed in one sitting. She was interested in creating a form of support beyond the automated crisis hotline messages users often receive when algorithms for social media platforms detect high-risk searches, such as "suicide" or "kill self." Data revealed that few people were using these resources because the messages felt impersonal and invalidating, said Schleider. "These new interventions are not designed to solve problems in one session, but helping people make one good choice can shift the trajectory of their lives," she said.

SHARING THROUGH OPEN ACCESS

Open science has been a trend among researchers for many years, but psychologists are now also uniting to share the most reliable clinical assessment tools available with the public on one website. The idea to build this type of resource originated from Mian-Li Ong, PhD, a former graduate student working with Eric Youngstrom, PhD, a professor of psychology and psychiatry at the University of North Carolina at Chapel Hill. Eager to break down walls between psychology and the public, Youngstrom and several students formed Helping Give Away Psychological Science (HGAPS), a nonprofit organization working to share psychology to promote well-being.

Youngstrom and colleagues reviewed and statistically analyzed dozens of free assessment instruments for several conditions—including depression, anxiety, post-traumatic stress disorder, and attention-deficit/hyperactivity disorder—and made the most reliable measures available on the HGAPS website. People can take the tests online and then receive assessment scores, which they can share with providers. "Many therapists provide treatment without using a rating scale or screener," said Youngstrom. "We tend to ask clients why they want therapy and focus treatment based on the response, but assessments can identify important issues that clients may not be aware of." He hopes the assessments will prompt more people to seek therapy and benefit as much as possible from treatment.

HGAPS has also started building pages on Wikiversity that share the most reliable assessment tools in multiple languages for 16 mental health conditions, including autism spectrum disorder, bipolar disorder in youth, and substance use disorder. Some Wiki pages are also related to popular shows, such as *Squid Game*, offering mental health resources related to topics covered in the show, such as food insecurity and sexual violence. According to the HGAPS dashboard, there have been more than 400 million views of the organization's resources on the web.

THE POWER OF ONE APPOINTMENT

The importance of designing interventions that can reach more people is gaining momentum not only in the digital arena but also in individual and group therapy contexts. Data show that most patients do not return after their first therapy appointment, even when providers recommend ongoing treatment (Hoyt, M. F., et al. [Eds.], *Single-Session Therapy by Walk-In or Appointment*, Routledge, 2018). Aware of this reality, psychologist Windy Dryden, PhD, professor emeritus of psychotherapeutic studies at Goldsmiths University of London, started offering a form of therapy that could effectively help patients in one session. He has trained counselors at more than 20 universities in the United Kingdom to use the model, and the majority of patients he sees through an employee assistance program opt for one session even though eight sessions are covered by insurance (*Australian & New Zealand Journal of Family Therapy*, Vol. 41, No. 3, 2020).

In the last year, demand for Dryden's single-session therapy training has increased because managers at health care agencies are motivated to reduce waiting lists. "I'm happy to provide training for this purpose, but this is not the primary purpose of single-session therapy," Dryden said. "The goal is to help people walk away from a session with the help they are looking for."

Patients complete a questionnaire before the session and share what they want from the meeting, how they have sought help in the past, what helped and what didn't, and other information. Many patients struggle to accurately assess threats and their ability to cope in the face of threats, so Dryden helps them talk through scenarios to improve their accuracy. "This intervention is designed for populations that are poorly served," he said. "People get what they want and waiting lists come down."

Evidence suggests that the single-session approach is helping patients. In a systematic review of studies involving single-session therapy to treat anxiety disorders in youth and adults, researchers found that this intervention was superior to no treatment and similar to multi-treatment sessions in reducing anxiety symptoms (Bertuzzi, V., et al., *Frontiers in Psychology*, Vol. 12, 2021).

LEARNING BY DOING

Focused brief group therapy (FBGT) is another strategy that increases access by empowering participants to practice skills in a safe environment. The model, which involves 8 to 12 sessions of group therapy, was developed by Whittingham when he was an associate professor of clinical psychology at Wright State University. The counseling center's providers had long waitlists and a desperate need for

SVETLOZAR HRISTOV/GETTY IMAGES; SIMPLEHAPPYART/GETTY IMAGES

Focused brief group therapy empowers participants to practice skills in a safe environment over eight to 12 sessions. Although FBGT originated in the university setting, an increasing number of health care organizations are looking to implement the model.

an intervention that would fit within the school calendar system. "I knew students were developmentally concerned about relationships, and I wanted to use the power of the group to help people," Whittingham said.

Participants take a pre-assessment called the interpersonal circumplex to understand their specific type of relationship distress. The tool assesses traits like assertiveness, dominance, agreeableness, and warmth, and members collaboratively establish goals with the therapist to improve relationships. During the meetings, participants restate their goals and practice new behaviors. If someone shares difficulties with a relationship, a group member who is striving to be less conflictual could practice being supportive by asking follow-up questions and affirming the individual. "This is not role play," Whittingham said. "By interacting in real time, people experience deep physical and emotional responses because they are often afraid of rejection." When they take risks by trying new behaviors and experience acceptance, participants are more willing to try the new behaviors in their lives, he said.

Although FBGT originated in the university setting, an increasing number of health care organizations have started contacting Whittingham to learn how to implement the model. Psychiatrist Meenakshi Denduluri, MD, was drawn to FBGT because the groups were here-and-now focused rather than centered on skills-based psychoeducation. Denduluri, who recently led FBGT in the Stanford University Department of Psychiatry and Behavioral Sciences in California, had also noticed that patients in individual therapy often struggled with interpersonal patterns that inhibited their ability to progress in treatment. "The psychological safety in the therapy groups allowed people to take interpersonal risks that they could not take in their personal lives," she said.

College campuses are also increasingly leveraging the healing power of social connections to boost support for students struggling with mental health issues. Although peer support programs are not new, they are proliferating on campuses nationwide amid a current mental health crisis and a renewed understanding that supporting students is the responsibility of the whole campus community—including peers, said Zoe Ragouzeos, PhD, LCSW, executive director of Counseling and Wellness Services at New York University. These peer programs can reduce stigma, reach more people, and increase diversity in the support options, she explained.

Mental health providers at New York University were eager to incorporate peers into the school's student support offerings in 2023, which prompted Ragouzeos to launch a peer listening program in which participants divided into pairs and responded to a prompt, such as "What is on your heart right now?" The participants took turns listening and sharing with responses of either "Is there more?" or "Thank you for sharing." Partners ended the conversation by expressing in a positive way how it felt getting to know the other person. Survey results from more than 500 students showed that most participants felt less stress, anxiety, and overwhelm after the peer listening interactions. "It was remarkable how many students feel that they don't have a forum in which they can speak about what is going on without interruption," Ragouzeos said.

Peer support programs range from psychoeducation, in which trained students provide information on mental health topics, to support groups, where students gather in formalized settings to share their experiences and feelings. Ragouzeos has seen robust interest among students to learn how to help peers who are struggling and have conversations that boost well-being. "We can't meet the needs without them because too few people come through the formal channels of counseling services," said Ragouzeos. "It is our responsibility to find ways to engage students in helping each other and ensure they have the right resources to support one another safely." ■

FURTHER READING

Randomized evaluation of an online single-session intervention for minority stress in LGBTQ+ adolescents
Shen, J., et al.
Internet Interventions, 2023

Peer programs in college student mental health: An essential approach to student well-being in need of structure and support
Humphrey, D., et al.
Mary Christie Institute and Ruderman Family Foundation, 2022

How Kaiser Permanente created a mental health and wellness digital ecosystem
Mordecai, D., et al.
NEJM Catalyst, 2021

FUTURE-MAKING RESEARCH IS NEEDED TODAY

The need for understanding human behavior has never been greater. Meet this need with incisive and decisive human data.
Meet iMotions.

iMotions is being used to help improve early diagnoses of autism, create new therapeutic paradigms for anxiety treatments, increase driver and pedestrian safety, understand how emotions impact learning, improve understanding of medical practitioner's attention, create a biosensor-driven MMSE, understand decision-making within military settings, build more reliable autonomous vehicles, improve control room management, understand and improve clinicians' attention to patient's emotions, improve assistance for borderline mothers, analyze responses to Van Gogh's paintings, build a better understanding of responses to paediatric emergencies, create new methods for prenatal affective cognitive training, improve methods for building environmental awareness, create new treatments for anxiety with VR, develop an understanding of the D/deaf Experience at cultural venues, further knowledge about the brain's response to pain, and much, much, more.

Create a deeper understanding of your own research questions with human-centric data.

iMotions is the world's leading platform for current and emerging biosensor technology. Control every aspect of your research in one place. Synchronize multiple datastreams and interrogate human behavior with unprecedented detail.

Take on the future with research tools ready today.

IMOTIONS
Powering human insight

People Want **Meaning** and **Stability** in Their Work

Widespread volatility is strengthening employee resolve to advocate for security, purpose, and well-being on the job. Here's how psychologists can continue to advance that momentum.

BY ANNA MEDARIS

MORSA IMAGES/GETTY IMAGES; HENRIK SORENSEN/GETTY IMAGES; KLAUS VEDFELT/GETTY IMAGES

When it comes to employment, Americans in all sorts of occupations—from auto workers to Hollywood actors, from startup founders to restaurant servers—are feeling unsteady thanks to artificial intelligence (AI), reverberations of the pandemic, job design, and other factors, psychologists say.

"Instability of work is something that has been part of humanity, and it feels like it's getting worse in some ways because it is getting worse," said David Blustein, PhD, a professor in Boston College's Department of Counseling, Developmental, and Educational Psychology.

"The number one thing people are craving right now is stability—especially in their workplaces," said Ella F. Washington, PhD, an organizational psychologist and professor of practice at Georgetown University's McDonough School of Business.

But the future of work isn't all bleak: An unstable ground is strengthening workers' resolve to advocate for meaning, well-being, and work-life balance on the job, and psychologists are poised to help.

"We know how to improve jobs and to improve motivation, to increase people's satisfaction, and also to make it so that they add value," said Susan J. Lambert, PhD, co-director of the Employment Instability, Family Well-Being, and Social Policy Scholars Network at the University of Chicago.

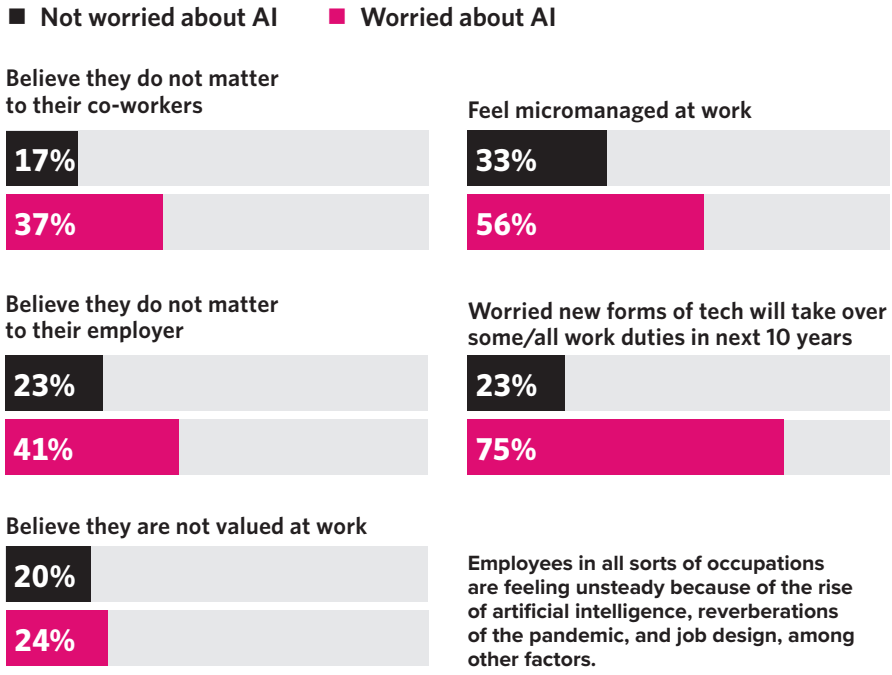
In other words, working toward greater stability, she added, "is good for business and it's good for people, and I think it's really good for society."

ORIGINS OF INSTABILITY

Instability at work doesn't just mean the threat, or reality, of layoffs. Researchers define it as "a state in which the consequences of a mismatch between an individual's functional and/or cognitive abilities and demands of their job can threaten continuing employment if not resolved" (*Brain Injury*, Vol. 20, No. 8, 2006).

Maybe someone's not paid enough to maintain their lifestyle, maybe they can't keep up with the pace, maybe they lack a sense of belonging, maybe their environment is straight-up toxic.

PERCENTAGE OF WORKERS REPORTING NEGATIVE ATTITUDES ABOUT WORK
BY WORRY ABOUT AI MAKING SOME/ALL JOB DUTIES OBSOLETE



Employees in all sorts of occupations are feeling unsteady because of the rise of artificial intelligence, reverberations of the pandemic, and job design, among other factors.

However workers experience it, the pandemic is perhaps the most blatant driver of instability at work—continuing to shake up the literal ground many employees stand on as employers experiment with hybrid schedules. While research suggests more flexibility largely benefits workers' mental health and productivity, quickly-shifting mandates on who should work where and when can be disorienting, as can an office environment that's just not the same.

Employees are "not necessarily in the same location when they are 'on location.' They're not necessarily, or rarely, with the same configurations of people and activities that they were before," said Amy Wrzesniewski, PhD, a professor of management at Wharton at the University of Pennsylvania who studies meaning at work. "So maybe people are in the office a few days a week, but the office isn't the office anymore."

Job design is contributing to instability too, said Lambert, a professor at the University of Chicago Crown School of Social Work who studies work scheduling practices among low-wage workers.

"A lot of jobs have just been so fragmented that people can't complete a whole job from beginning to end, and they can't take pride in it," she said. It's easier for a salesperson who sees a purchase all the way through to reap satisfaction, for example, than someone whose single duty is to price items.

Put another way: When jobs are designed so that people can be replaceable, they'll feel replaceable.

Relatedly, an increasing reliance on contract workers over salaried employees is driving instability, Blustein said. This played out in the auto workers' strike of fall 2023, he said, where the workers

Many organizations have eased up on their commitment to EDI—sometimes unintentionally, and often quietly, such as leaving an EDI director role unfilled. Employees from underrepresented populations can feel it and start to psychologically retreat.

demanded automakers stop hiring so many temporary workers to do their tasks.

Wavering equity, diversity, and inclusion (EDI) efforts (see page 22) can also contribute to instability at work, particularly among employees from marginalized groups, said Washington, a EDI expert who serves as founder and CEO of Ellavate Solutions in Washington, D.C.

Washington said she's witnessed many organizations ease up on their commitment to EDI—sometimes unintentionally, and often quietly, such as having a page on their website about inclusion go dark or an EDI director role go unfilled.

"To me that's the more scary part of the change because—unlike the change in 2020—you can't see it until it's too late," she said.

But employees from underrepresented populations can feel it and, as a result, start to psychologically retreat. That has implications for both them and their employers, Washington said.

"Research shows that when employees can be their authentic selves and they can work and play toward their strengths, they're not only happier and feel more of a sense of psychological safety, but they also do better work," she said.

Finally, how artificial intelligence (see page 8) is and will affect people's livelihoods is contributing to both practical and emotional instability among workers.

In a follow-up to APA's 2023 *Work in America* survey specifically about AI, 38% of respondents reported worrying that AI might make some or all of their job duties obsolete, and 64% of those who were worried said they typically feel tense or stressed during the workday.

In one recent study, Wrzesniewski explored how 94 former or unemployed newspaper journalists have navigated not just job loss but also the decline of their whole industry, and often along with it, a sense of identity and purpose. She and collaborator Winnie Jiang, PhD, found that whether people had a "fixed" or "flexible" meaning in their work predicted whether they held out hope that their field would be restored—or they reinvented their careers.

Those with a more flexible mindset tended to recover more quickly from the sadness of their loss, and even found a sense of freedom along the way. Professionals of all stripes who may be impacted by AI should take note.

"There's some pretty good evidence that AI is going to affect people in jobs that are more precarious to begin with, or jobs that are easily replaced by automation," Blustein said. "So that's a huge issue, and that's going to add to the precariousness of work."

FINDING MEANING AMID UNCERTAINTY

Despite a social media trend of younger workers saying they want mindless work that allows them to clock in and out and live their lives, research suggests people of all ages largely crave a deeper purpose on the job.

In APA's survey, 93% reported believing it's very or somewhat important to have a job where they feel the work has meaning. Fortunately, most workers felt their jobs met the mark. Indeed, "mattering at work," which is defined to include meaning and dignity, has been listed by the U.S. Surgeon General as one of the "five essentials" for mental health and well-being in the workplace.

If you're not seeking value from your work outside of a paycheck, Wrzesniewski asked, "then where is that sense of meaning or that sense of accomplishment or that sense of development and learning and pride coming from?"

"If there's not an available other domain in life in which that's happening," she said, "then I think it becomes a pretty closed and unfulfilling loop ultimately."

The search for meaning shouldn't be a privilege limited to white-collar workers, Lambert said. "Everybody wants to have a job that uses their skills, that allows them to take pride in their work," she said. "Think of the electrician, think of the plumber, think of the craftsmen who used to be able to make something and

"Research shows that when employees can be their authentic selves and they can work and play toward their strengths, they're not only happier and feel more of a sense of psychological safety, but they also do better work."

ELLA WASHINGTON, PHD, GEORGETOWN UNIVERSITY

put their name on it. Those are incredibly rewarding jobs."

But meaning is self-defined: For some, earning a paycheck is richly meaningful alone, Blustein said.

Meaningful work can also coexist with firm work-life demarcation, something employees increasingly say they want, but that the pandemic further blurred, according to Tammy Allen, PhD, a distinguished university professor in the University of South Florida's Department of Psychology who studies work-life balance. Indeed, APA's *Work in America* survey found only 40% said their time off is respected.

That's problematic for all parties since, Allen said, "some detachment from work makes people be able to be better workers and to be able to bring their best selves to work, as opposed to being perpetually on and overworked, which can result in burnout."

She's found that simple so-called temporal boundary management tactics can help people set boundaries between work and home. Shutting down the computer at the end of the day and taking breaks during the day, for instance, can make a big difference in improving employee mental health.

Wrzesniewski's research on "job crafting," meanwhile, demonstrates how employees can weave their own values and interests into their work to keep them more engaged. For example, an accountant may implement a new way to file taxes to make the job less repetitive or a teacher who moonlights as a musician may reframe their lectures as a performance. People who successfully job craft, other work has found, are more likely to have their needs for autonomy, competence, and relatedness at work met, and they also report better subjective and psychological well-being (*Journal of Happiness Studies,* Vol. 15, 2014).

"Try to start to build up and out from where you are to run these small experiments and make these small moves that may become bigger moves that get sustained and cemented into changes in your role over time," she said.

Still, much of the onus is on employers to design roles, cultivate work environments, and support relationships that help staff find purpose, belonging, and ultimately, more security. Policymakers, governments, and health care providers also have a responsibility to support workers' mental health through population-wide, not just individual, interventions a recent article in *The Lancet* argues (Rugulies, R., et al., Vol. 402, No. 10410, 2023).

The good news, psychologists say, is that employers are waking up to this reality, which also supports their bottom line.

"Organizations are realizing they need to adapt to the needs of their workers," Blustein said, "and that would be a very positive trajectory for the future." ■

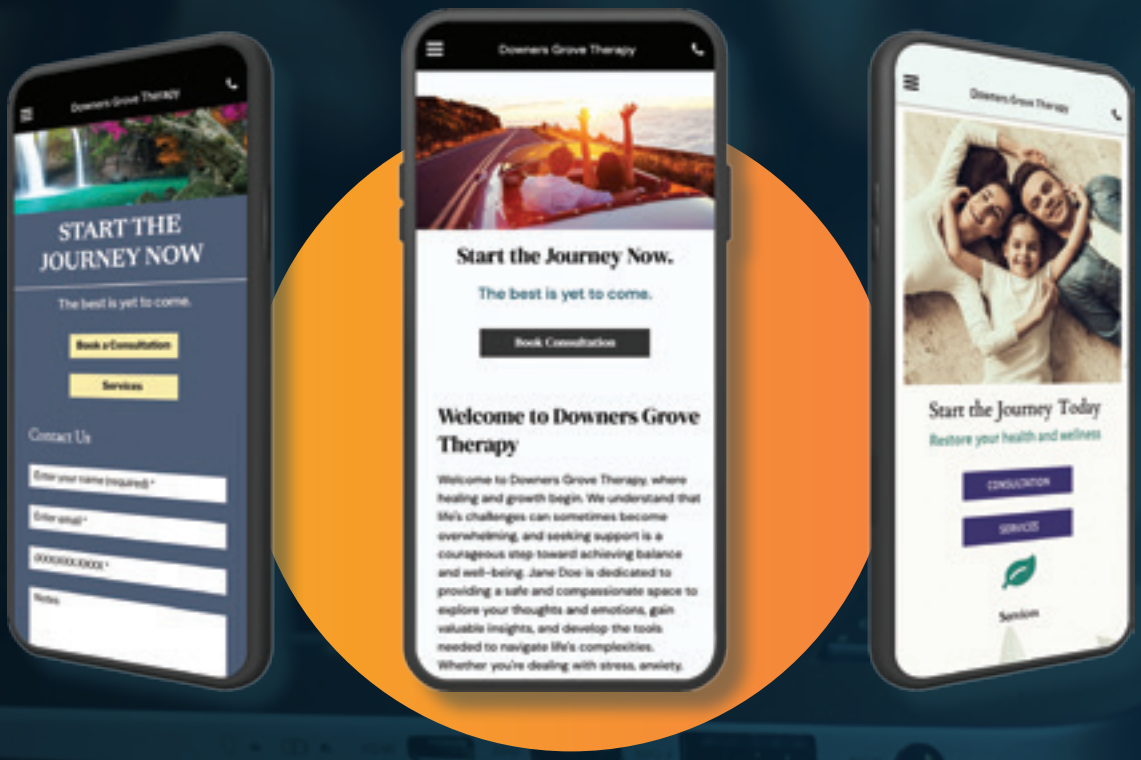
Many employees have trouble setting boundaries between work and home. Shutting down the computer at the end of the day and taking breaks throughout the day are among the strategies that can make a big difference.

MOMO PRODUCTIONS/GETTY IMAGES; KLAUS VEDFELT/GETTY IMAGES; MASKOT/GETTY IMAGES

therapysites

Responsive. Reliable. Remarkable.

Make the switch to TherapySites and see how over 20,000 practices like yours have turned their website into a highly profitable investment.



Maintenance-Free Website | Unlimited Customer Support | No Setup Or Contracts

The Perfect 3-2-1 Bundle Deal

3 Months of Website Hosting, 2 Months of SEO Services, and 1 Month of Reputation Management Absolutely FREE

Scan or visit **TS321Deal.com**

Psychologists Are Innovating to Tackle Substance Use

New interventions are improving chances of recovery from addictions

BY HEATHER STRINGER

People who lost relatives to a drug overdose sit among imitation graves near the U.S. Capitol. The graves were set up by Trail of Truth, an organization that works to memorialize those lost to substance use and to demand change.

STEFANI REYNOLDS/AFP/GETTY IMAGES

The latest trends in the United States for both illicit and legalized substances are sounding alarm bells for experts who track the harmful consequences of addiction. In 2022, more than 109,000 people in the nation died of drug overdoses—an estimated 54% jump from 2019, according to provisional data from the Centers for Disease Control and Prevention (CDC) (National Center for Health Statistics, 2023). Roughly two-thirds of these deaths involved illicitly manufactured fentanyl, a synthetic opioid that is 50 to 100 times more potent than heroin (*Morbidity and Mortality Weekly Report*, CDC, Vol. 72, No. 26, 2023).

Illicit drug makers are also increasingly mixing other substances with fentanyl, such as cocaine, methamphetamine, or xylazine, a sedative used in veterinary medicine. These combinations are creating a perfect storm of responses in the body that increases the risk of death, said Nora Volkow, MD, director of the National Institute on Drug Abuse (NIDA).

"The recreational drugs today are much more dangerous than what was available on the market 10 years ago, and we are seeing a dramatic increase in mortality," Volkow said. "As we come out of the pandemic, there is also still a significant amount of distress in the population, and this increases the risk of substance use disorders."

She is also concerned about the surge in regular cannabis consumption, especially as the availability of products with high levels of tetrahydrocannabinol (THC)—the main psychoactive compound in cannabis—continues to increase. Daily use in 2022 reached the highest level ever reported for young adults in NIDA's *Monitoring the Future* survey. Eleven percent of the respondents ages 19–30 reported using cannabis daily, and regular consumption of higher-content THC products can increase the risk of developing psychosis, cannabis hyperemesis syndrome (repeated and severe bouts of vomiting), suicidal ideation, and other conditions.

Although the statistics are alarming, psychologists are forging new pathways not only to offer support to more people who are misusing substances but also to improve the chances that they will successfully recover from substance use disorders. The strategies range from including probation officers in treatment efforts to advocating for programs that reward positive behavior.

The researchers pioneering this work are optimistic the innovations will help to slow or reverse worrisome trends, but societal biases have impeded progress. "There is remarkable stigma associated with substance use disorders in regulatory agencies, law enforcement, and health care, and psychologists need to use their position to develop and advocate for the programs that can assist patients," said Rosemarie Martin, PhD, an experimental psychologist at Brown University and a principal investigator in the National Institutes of Health's (NIH) Helping to End Addiction Long-term (HEAL) Initiative. "Increasing access to care for people struggling with substance use issues is a matter of social justice," she said. NIH has invested $2.5 billion in more than 1,000 HEAL projects nationwide.

BUILDING NEW ALLIANCES

As an investigator for HEAL's Justice Community Opioid Innovation Network, Martin is leading a program that equips probation officers to collaborate with community treatment providers. "Historically, treatment providers have not shared information with probation staff," Martin said. "They are concerned about violating the patient's privacy and that probation workers are looking for reasons to send people back to jail."

Martin's team recently invited probation staff and community health providers in Rhode Island to collaborate to identify gaps in care. They recognized that courts often do not mandate substance use treatment to reduce the number of restrictive conditions for probation. As a result, individuals misusing opioids were not accessing the care they needed. Now, probation workers in Rhode Island are screening individuals for opioid use at the outset of parole or probation. The community treatment providers are also communicating openly with probation officers when patients are struggling with opioid misuse. "If someone is going through a rough time, the probation officer can meet with the individual more often to provide referrals or other forms of support," Martin said. She helped launch similar collaboration programs in Philadelphia and North Carolina.

Family members are another invaluable, often overlooked, resource in efforts to combat the opioid epidemic, said Marc Fishman, MD, medical director of Maryland Treatment Centers and a psychiatrist at the Johns Hopkins University School of Medicine. "When we think about any other subspeciality in health care, it is natural to involve family members if someone is ill," he said. "With substance use disorders, loved ones are unsure what to do and there is a sense of shame and stigma." He developed the Youth Opioid Recovery Support (YORS) intervention, in which one or more family members learn how to become allies who ensure youth in the program receive their monthly injections of medication for opioid use disorder—such as buprenorphine

NEW STRATEGIES TO END ADDICTION

Psychologists are forging new pathways to help more people successfully recover from substance use disorders.

or naltrexone—to reduce cravings and block the effects of opioids. Family members also learn how to maintain the patient's confidentiality and when to call the treatment team with concerns.

The program also uses an "assertive outreach" approach, which involves frequent communication with patients and family members about reminders, progress check-ins, and scheduling. "We are not passively waiting for the patient because motivation can fluctuate," said Fishman. The medication is also delivered directly to the patient's house. In the pilot study, nearly 50% of YORS patients did not relapse after 6 months, compared with 5% for the controls. The controls received treatment as usual, which included one dose of medication and an appointment to return to the clinic for subsequent doses (*Journal of Substance Abuse Treatment*, Vol. 125, 2021).

NOVEL MEDICATIONS FOR WITHDRAWAL

New pharmacological treatments are also showing promise as a strategy to help people reduce drug use. For years, scientists have struggled to develop medications to treat cannabis use disorder, which occurs in about 1 in 5 cannabis consumers. One approach was blocking the specific cannabinoid receptors that are associated with the "high" caused by THC. But this method inhibits naturally occuring endogenous cannabinoids in the body, which leads to harmful side effects such as depression and suicidal ideation as well as withdrawal in individuals with cannabis use disorder. Recently, researchers discovered a drug currently called AEF0117 that inhibits only a subset of intracellular activity resulting from THC activation of the receptor. This medication does not produce negative side effects or withdrawal symptoms.

In a recent study, Margaret Haney, PhD, a professor of neurobiology at Columbia University Medical Center and director of the school's Cannabis Research Laboratory, found that people who received the medication consumed less cannabis over a period of 4 days than those who did not receive the medication (*Nature Medicine,* Vol. 29, No. 6, 2023). For Haney, one of the major advantages of this new pharmacological treatment is that it could help people who are interested in either abstaining or reducing their cannabis intake. "Many people are not open to quitting and want to control their use," she said. "This is the first time we have found a medication that will help people use less by decreasing the high without side effects."

Psychologists have also recently seen the benefits of a new pharmacological treatment that reduces a common withdrawal symptom: insomnia. People in treatment for opioid use disorder (OUD) often report that insomnia continues long after other withdrawal symptoms subside, but sedative medications typically used to treat insomnia are not recommended for people with OUD because these drugs can create a "high" sensation. Andrew Huhn, PhD, an associate professor in behavioral pharmacology at Johns Hopkins University School of Medicine, recently found that a drug called suvorexant—which inhibits wakefulness rather than promoting sedation—reduced insomnia in participants with OUD. The medication also helped to reduce other withdrawal symptoms such as vomiting and cravings (*Science Translational Medicine,* Vol. 14, No. 650, 2022).

MONETARY INCENTIVES FOR SOBRIETY

There are also signs that contingency management—or rewarding people for positive behavior—may be available to more patients soon. With this method, patients receive financial incentives such as gift cards as a reward for negative drug urine tests or other outcome measures, and there is overwhelming evidence that this strategy is highly effective in helping people recover from stimulant use disorders. But contingency management has not been used widely because the Centers for Medicare & Medicaid Services (CMS) has been unwilling to fund these programs, said Stephen Higgins, PhD, a behavioral pharmacology professor at the University of Vermont and founder of voucher-based contingency management for substance use disorders. "Regulators

FG TRADE LATIN/GETTY IMAGES

NEW STRATEGIES TO END ADDICTION

NEW BOOK HELPS CHILDREN PROCESS A LOSS TO DRUG OVERDOSE

In May, APA's children's book imprint Magination Press will publish *All the Pieces: When a Loved One Dies from Substance Use*, a picture book to help children understand the loss of a loved one to drug overdose. The book is geared toward children 4 to 8 years old and can guide parents, educators, and mental health professionals on how to address the stigma associated with a death from a drug overdose and the common grief responses children have, such as assuming the death was their fault rather than a symptom of a disease. Learn more at www.apa.org/pubs/magination/all-pieces.

are concerned about fraud, such as providers who use the vouchers to draw people to a clinic who do not need treatment," Higgins said. "But these programs can be designed to include safeguards that prevent this."

In 2021, California became the first state to receive a waiver from CMS allowing regulatory approval to use a contingency management program for recovery from stimulants. In 2023, Washington state received a similar waiver. Michael McDonell, PhD, a professor in the Department of Community and Behavioral Health at Washington State University, has advocated for these programs, and he is encouraged by the increased openness to this evidence-based approach to treating addiction. "States are responding to the struggles that their citizens are having, and psychologists are leading the way to advocate for this strategy," McDonell said.

RESOURCES FOR HEALTHY COPING

Researchers are also working to address the underlying psychological and social conditions that perpetuate problematic drug use. Katie Witkiewitz, PhD, director of the University of New Mexico Center on Alcohol, Substance Use, and Addictions, believes it is critical to depathologize substance use behaviors. "If we recognize that people experience something positive when using these products, we can help them see the negative consequences and find different ways of getting their needs met," she said.

Witkiewitz has been studying mindfulness-based treatment programs for people with alcohol use disorders. In 2022, rates of binge drinking in adults 35–50 reached an all-time high of 29%, according to the *Monitoring the Future* survey. For all age groups, the gaps are narrowing between males and females in consumption and related harms, such as emergency department visits and deaths.

Witkiewitz recently launched an online mindfulness group therapy program, known as THRIVE, that helps people with alcohol use disorder learn general life skills to cope with stress. In 60-minute virtual group meetings, participants explore how to feel stress and discomfort without trying to alter these emotions with alcohol, how to be mindful when things are going well, and how to savor moments. She plans to follow the participants for 3 years to track alcohol use and well-being.

Although new interventions like this hold promise, people who could benefit from them are missing opportunities for help because many clinicians do not screen patients for substance use, said Witkiewitz. "Most psychologists lack training in addiction medicine, and as a result, too many patients are treated solely for mental health conditions without receiving support for substance use disorders," she said.

Volkow believes consistent screening will not only increase the chances of identifying people who are suffering from addictions but also help more individuals avoid substance use disorders altogether. "By screening more people, psychologists are in a unique position to do an intervention that can prevent patients from escalating to more frequent use," she said. "It starts with telling patients how dangerous certain substances can be." ■

FURTHER READING

Contingency management for patients receiving medication for opioid use disorder: A systematic review and meta-analysis
Bolívar, H. A., et al.
JAMA Psychiatry, 2021

Gender differences in the epidemiology of alcohol use and related harms in the United States
White, A. M.
Alcohol Research: Current Reviews, 2020

Post-incareration outcomes of a comprehensive statewide correctional MUD program: A retropective cohort study
Martin, R. A., et al.
The Lancet Regional Health—Americas, 2022

THERE'S A STRONG PUSH FOR MORE SCHOOL PSYCHOLOGISTS

A combination of pre-existing shortages and a rise in school stressors has led to a major effort to train and hire more school psychologists

BY EMILY SOHN

With a growing mental health crisis among young people—a trend both exacerbated and illuminated by COVID—the need for school psychologists is multiplying. School psychologists in the United States offer counseling, assess students for intervention needs, respond to crises, launch school-wide initiatives to reduce bullying—and more. Trained in psychology, child development, and education, these experts play a crucial role in identifying mental health needs in young people, especially in cases where families don't speak English or don't have resources to pursue evaluations on their own.

Among high school students, rates of chronic absenteeism (defined as missing 10% or more of school days) has nearly doubled from about 15% to 30% since the pandemic.

TREVOR WILLIAMS/GETTY IMAGES

When school psychologists oversee too many students, their schedule is often filled with discussing children's individualized education plans. While that is an important part of the job, it leaves little or no time left to do behavior interventions, help teachers, offer counseling, or other tasks.

MEDIANEWS GROUP/READING EAGLE/GETTY IMAGES

But school psychologists are in short supply in the U.S. During the 2021–22 school year, there was, on average, just one psychologist for every 1,127 students in kindergarten through 12th grade across the United States (State Shortages Data Dashboard, National Association of School Psychologists (NASP), January 2023). That's far fewer than the goal of one for every 500 students set by NASP. There is a particular need for bilingual school psychologists to work in a culturally sensitive and inclusive way with an increasingly diverse student body. The shortage is notably extreme in rural areas and certain parts of the country, especially southern states.

In Mississippi, according to the best available data, there is 1 school psychologist for every 9,292 students. In New Mexico, the ratio is 19,811 to one. In rural Colorado, it's 2,128 to one, compared with 942 to one in the state overall. Only a few states and territories meet or come close to the recommended ratio, including Utah and Puerto Rico.

"Our nation is seeing increasing numbers of students experiencing poverty and trauma and growing numbers of children with mental health disorders," said Andrea Clyne, PhD, president of NASP in Bethesda, Maryland. "Schools are woefully underresourced when it comes to the provision of needed services for a population with diverse backgrounds and needs."

To address the gap between supply and demand, a variety of efforts are underway to boost the numbers of mental health professionals in schools. Many of those efforts are buoyed by an influx of support from the U.S. Department of Education. In 2023, the department gave $141 million to 103 states and school districts. Grantees are working to raise the profile of school psychology as a profession and recruit more candidates by eliminating the barriers to entry. It is the biggest level of commitment counseling psychologist Dorothy Espelage, PhD, has seen in her 30 years in the field, and it is fueling long-overdue momentum.

"It took a crisis in the schools," said Espelage, who is also a bullying-prevention expert at the University of North Carolina, Chapel Hill. "We've had the shortage, but somehow—because of the suicide rates, because of school shootings and other crises—we've had an administration that said, 'We're going to pay attention to mental health.'"

GROWING DEMANDS

Although a shortage of school psychologists has been a problem for decades, the COVID-19 pandemic made the situation worse, experts say, in part by exacerbating a growing mental health crisis among young people. Growing awareness also put a lens on the issue, in turn identifying more kids in need of support.

In 2021, 42% of high school students and 57% of teen girls said they felt persistently sad or hopeless, according to a U.S. Centers for Disease Control and Prevention report—the highest rate in 10 years (*Youth Risk Behavior Survey Data Summary & Trends Report,* 2023). Some 20% of adolescents had major depressive disorder that year, according to a 2023 study, which found that fewer than half of those who needed treatment were getting it (Flores, M. W., et al., *JAMA Pediatrics*, online first publication).

Suicide is also a rising concern. In 2021, according to the CDC report, 10% of high school students attempted suicide, and 22% seriously considered it. Certain groups of kids are particularly vulnerable to mental health and suicide risks. Among LGBTQ+ students, 69% felt persistently sad or hopeless, and 45% seriously considered attempting suicide. "These are dramatic and staggering numbers of children and youth who are struggling with their mental health," Clyne said.

For younger kids, educators report seeing more aggressive behavior, dysregulation, bullying, and disruption—a lack of emotional regulation that appears linked to isolation during the pandemic. Kindergartners are running out of the classroom and away from school, and that behavior extends to older students, too, said Stephanie Corcoran, PhD, president of the Alabama Association for School Psychologists and program director for school psychology at the University of Alabama at Birmingham (UAB). Among high school students, rates of chronic absenteeism (defined as missing 10% or more of school days) has nearly doubled from about 15% to 30% since the pandemic, according to an analysis of national data. Parents tell Espelage that their kids don't seem to be hitting developmental

MORE SCHOOL PSYCHOLOGISTS

milestones, and their kids say they don't want to go to school. "I'm in schools every day, and sometimes I'll turn to the teacher and say, 'This is an eighth-grade classroom, right?'" Espelage said. "Why do I feel like I'm in a sixth-grade classroom?"

The growing demand has put a heavy strain on already-overworked school psychologists, who may be overseeing 10,000 or more students. The job can quickly become overwhelming. A psychologist needs to be present for every meeting to discuss any child's individualized education plan, Espelage said, and each of those meetings can take a half a day. With such high student caseloads, that leaves little or no time left to do behavior interventions, help teachers, offer counseling, or other tasks. "What you end up doing is spending all of your time doing special education evaluations," Corcoran said. "You're just trying to keep your head above water."

BARRIERS TO ENTRY

With escalating behavior problems that sometimes include violence alongside COVID-19-related academic losses, schools can be high-stress environments, and burnout rates are high for education professionals of all kinds. Around the country, there are shortages of school nurses, social workers, and counselors. New teachers leave the profession at a rate of 44% in the first 5 years, according to a 2018 study (*Seven Trends: The Transformation of the Teaching Force,* Consortium for Policy Research in Education). In a 2022 survey of members of the American Federation of Teachers, 74% of teachers said they were dissatisfied with their jobs, and 40% said they thought they would leave the profession in the next 2 years (*Under Siege: The Outlook of AFT Members,* Hart Research, 2022).

School psychologists are vulnerable to the stresses of working in schools, too. Up to 90% of school psychologists report feeling burnt out sometimes, according studies conducted before the pandemic (Schilling, E. J., & Randolph, M., *Contemporary School Psychology*, Vol. 25, No. 4, 2021). In a 2018 survey in the southeastern United States, where shortages are most extreme, about 22% reported thinking about leaving their current position (Schilling, E. J., et al. *Contemporary School Psychology,* Vol. 22, No. 3, 2018). "There

are a lot of issues in schools," Corcoran said. "Kids have significant needs, and there's just not enough personnel to cover all the needs, so they can start to feel overwhelmed."

Then there's politics. In Florida, Governor Ron DeSantis recently banned social-emotional learning, directly contrasting the efforts of school psychologists. It is illegal there, Espelage said, to teach topics related to social justice, intersectionality, and other concepts integral to psychologists' work. Similar bills have been proposed in at least eight states.

Even for people who might be a good fit for the profession, school psychology has a visibility problem, Corcoran said. She was working as a special education teacher when she learned about the career, and many of her colleagues have similar stories. "You don't hear about a lot of little girls and boys saying they want to be school psychologists," she said. "We joke in the field that you kind of fall into it by accident."

There is also a strain on the pipeline. Many university PhD programs, which take 6 or more years to complete, graduate just a handful of school psychologists a year, Espelage said. Boosting numbers more quickly, she said, will require increasing the number of programs that offer master's-level EdS degrees, which generally require 2 years of coursework and a yearlong internship. "We don't have time to wait for somebody for 5 to 6 years and then only put five [graduates] out, and then only three of them might actually be in schools," she said. "It's going to take decades to address this gap."

WIDENING THE PIPELINE

With help from federal funding as part of the U.S. Department of Education's School-Based Mental Health Services Grant Program, more school psychologists may soon be filling in some of the holes. This past fall, for example, UAB launched a 2-year program to retrain cohorts of 12 educators as school psychologists, earning them an EdS. Instead of the traditional full-time, in-person classroom model, the UAB program offers part-time, hybrid, and online options, Corcoran said. That flexibility expands access to people in rural areas, people who have families, and people who can't or don't want to leave their full-time jobs to complete the training. The program also collaborates with school districts to match program participants with fieldwork and internships.

UAB doesn't require graduates to stay in the school system, Corcoran said, but because people who enter the program have already been working in schools, they are passionate about their work. "One of my students was just saying that they're having such issues with severe behavior and elopement and that kind of thing, and no one knows how to handle that; they weren't trained for that," Corcoran said. "They want to help these kids. The kids are struggling, and the teachers are struggling because they don't know what to do."

Other grantees include the University of Wisconsin, Lacrosse; the University of North Carolina, Greensboro; Indiana University; and the University of Denver's Morgridge College of Education, which is using $3.82 million in federal grant money to recruit and train 32 school psychologists over the next 5 years, with a focus on placing people in Colorado's rural communities, where ratios of school psychologists are significantly lower than the state average. SUNY Oswego is using its new 5-year grant from the U.S. Department of Education to offer free tuition, a paid internship, and guaranteed placement after graduation in the Syracuse City School District.

One of the most promising strategies for boosting the ranks of school psychologists in the places where they are most needed may be with "grow your own" programs, which recruit people where they already live and work, said Stephanie Schmitz, PhD, a school psychologist at the University of Northern Iowa in Cedar Falls. She and colleagues have used federal funding to recruit people with master's degrees working in education around the state to re-specialize as school psychologists.

The university's EdS program is now working with its third cohort of five students and has made adjustments based on experience. Students in the grow-your-own program take classes part time and primarily online over 2 and a half years, instead of 2 as the program was originally designed, followed by a yearlong internship. They make a 3-year commitment to work in schools in their current geographical area after they graduate.

Few studies have examined the best way to retain school psychologists, Schmitz and colleagues wrote in a 2021 study, but grow-your-own programs offer opportunities to address many of the obstacles. "Within our state I feel like the momentum is definitely building for this," she said. "There's a lot of interest."

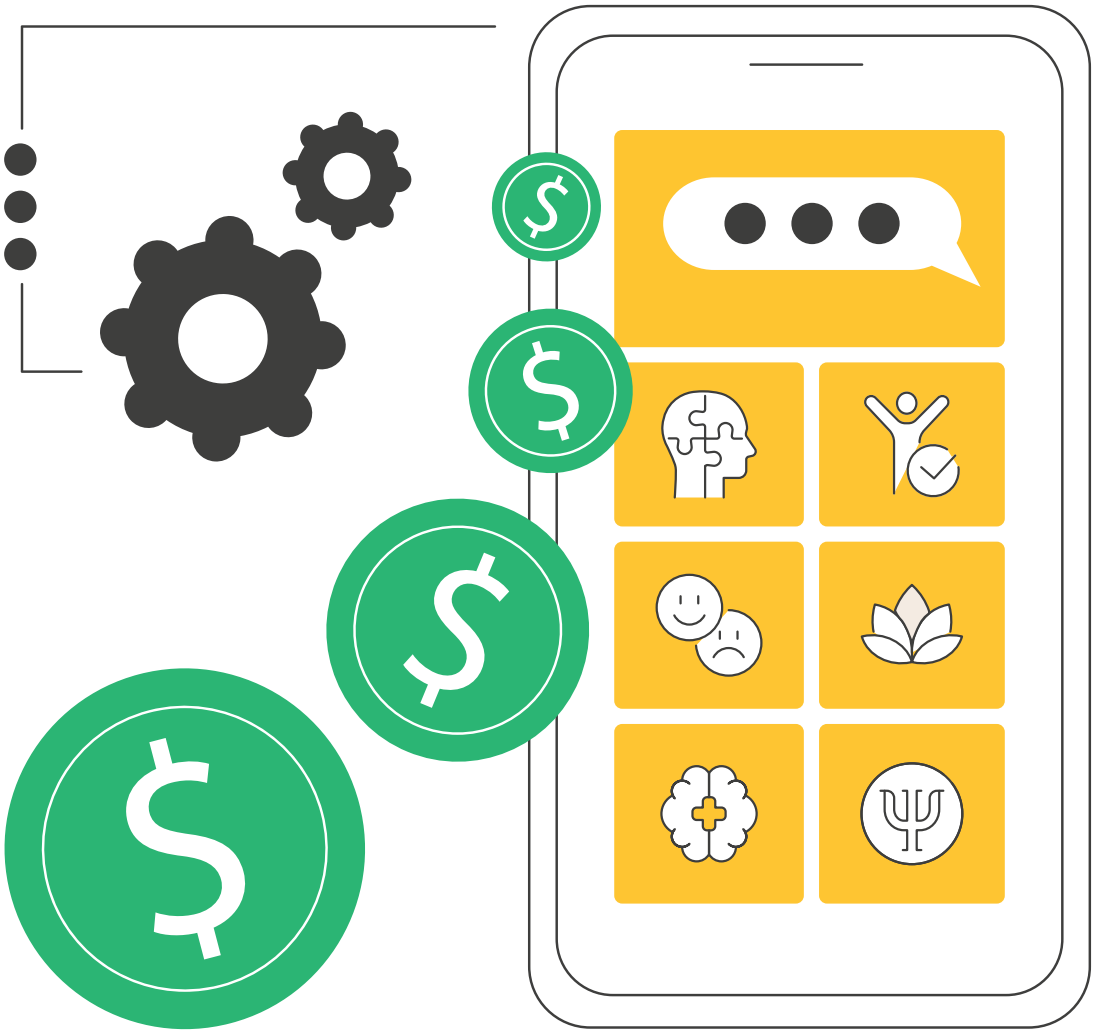
In addition to recruitment efforts like these, NASP is working to increase job satisfaction through a focus on initiatives that improve working conditions and professional growth, Clyne said. They are advocating for more federal investments, as well as paid internships for graduate students, stipends and other financial incentives for school psychologists who earn and maintain their credentials. The organization also offers guidance to school districts on how to create working conditions that help school psychologists do their jobs. And they are working to establish credentialing reciprocity so school psychologists can work across state lines.

When more school psychologists join the profession and stay there, Clyne said, the job gets more enjoyable for everyone—and more students can thrive. ■

Monetizing Mental Health Is Harder Than It Looks

After several years of rapid growth of mental health technology companies, a slew of high-profile layoffs and ethical breaches are spurring better clinical and business practices

BY ZARA ABRAMS



VISUAL GENERATION INC/GETTY IMAGES

In 2020, interest rates were low and concerns about mental health were high. Funding for digital mental health poured in. But times have changed.

Companies such as Better Therapeutics and Akili Interactive have laid off at least 30 percent of their workforces, and clinicians have often been among those let go. Even popular products are struggling to stay afloat: Headspace Health let go 33 therapists, and weight loss startup Noom made three rounds of job cuts in under a year. After going public in 2021, Pear Therapeutics filed for bankruptcy and sold its assets in April.

And the problems are not just on the business side; some of the layoffs and business practices have caused therapeutic harm to patients. Headspace laid off therapists abruptly, providing little warning or explanation to patients. Cerebral faced scrutiny for alleged unethical prescribing practices, problematic ads tying attention-deficit/hyperactivity disorder to overeating, and sharing personal health data with social media platforms.

"The intent was probably good. We have a mental health crisis, particularly as a result of the pandemic," said C. Vaile Wright, PhD, senior director for health care innovation in APA's Practice Directorate. "But mental health is not a 'get rich quick' scheme, and funders need to have appropriate expectations."

Abruptly firing clinicians is not only antithetical to the goal of providing effective mental health care, but also bad for business. In many cases, companies hit troubled waters because they failed to integrate clinical expertise from the start.

"How are you building mental health tools or mental health care without mental health clinicians? You don't see companies building a pacemaker without cardiologists," said Jessica L. Jackson, PhD, a licensed psychologist and chair of APA's Mental Health Technology Advisory Committee (MHTAC).

There are reasons to be optimistic as we enter what some are calling a "second wave" of mental health technology

VISUAL GENERATION INC/GETTY IMAGES

But there are also reasons to be optimistic as we enter what some are calling a "second wave" of mental health technology. One aspect of this second wave is a shift in investors' approach. Instead of backing technology experts looking to capitalize on the upswing in demand for mental health care, investors are increasingly looking to fund mental health care experts who are building technologies and digital products that serve those seeking help.

"I'm still optimistic, because companies are starting to adjust from what they learned in the first phase of digital mental health," said Matt Scult, PhD, a digital mental health consultant and part of the leadership team for Therapists in Tech, a nonprofit organization that supports mental health professionals working with technology companies. "People still have trouble accessing and paying for mental health care, so there's still a need for innovation to increase access to care."

WHAT WENT WRONG

Around the start of the COVID-19 pandemic, the mental health technology industry was booming. A favorable economic climate (low interest rates and lots of venture capital funding) coincided with a strong need for affordable and accessible mental health care—what digital mental health expert David Cooper, PsyD, calls "easy money and people with really good intentions."

In startup culture, funding companies with potential rather than a proven track record is common. Most startups do not need to be profitable right off the bat. But when the economy took a downturn, digital mental health companies without clinical know-how or a clear path to profitability started to struggle.

"That changed the timeframe for which the economics needed to be figured out and gave a real jolt to the industry that people weren't necessarily expecting," Scult said.

When the money started to run out, mental health technology companies had a few options, said Cooper, who is a member of the MHTAC. Companies

could take a "down round" and raise funds at a lower valuation—which can send the message that a company is struggling. They could find a way to increase revenue—which is tough in a crowded market—or "extend the runway," meaning try to keep the lights on as long as possible with remaining funds. One way to do that is through layoffs. In many cases, psychologists are among the first to go because they are seen as service providers who can be rehired later if funds allow.

"Health tech and startups tend to focus on this hyper-growth model, and with that often comes over-hiring," said Kay Nikiforova, head of clinical and research at health equity startup Violet and a member of the MHTAC. "Clinicians who provide direct care are viewed as a dispensable resource, rather than as part of the organization."

Perhaps surprisingly, psychologists working in other roles—including clinical strategy, clinical research, product development, and marketing—are also some of the first to go. While those layoffs might temporarily extend the runway, Cooper said they are likely to harm a company's long-term viability when it comes time to demonstrate the quality of their services in an increasingly saturated market.

"Who can assess your product's quality, advocate for it with credibility, and help you improve quality compared to your competitors? All of the psychologists you just laid off," he said.

Cutting clinicians is bad for business, and it can also cause real harm. Patients may feel abandoned, and even those who stay engaged with technology products may be less likely to seek out mental or behavioral health care in the future, Wright said.

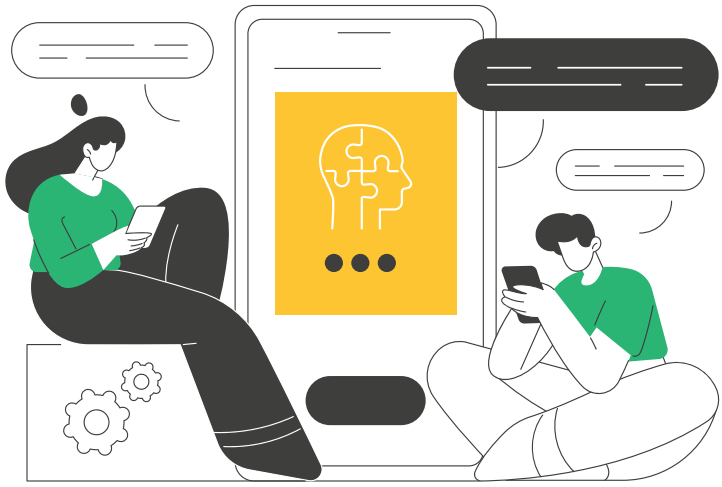
"These apps could be a gatekeeper, in a good way, where they allow people a less stigmatizing or more cost-effective way to approach their emotional well-being," she said. "But if someone has a bad experience, how does that impact them in the long run?"

For patients who have never had an experience with mental health care and who cannot access or afford traditional private practitioners, an app could be the next best thing. An abrupt termination of their burgeoning therapeutic relationship or other ethical breach could sour their views on therapy.

"Technology can be a path toward a more inclusive field of psychology, but the people building these apps aren't always thinking about ethics," Jackson said.

Another concern is that the rocky early days of digital mental health care might bias psychologists against the industry, which could limit its growth potential.

"If these challenges cause us to see technology as a threat, rather than as a tool, that could have negative implications for the profession," Wright said.



For people with no experience with mental health care or who cannot access or afford traditional private practitioners, an app could be the next best thing.

VISUAL GENERATION INC/GETTY IMAGES

A SECOND WAVE

Despite the recent struggles—and to some extent, because of them—digital mental health experts are optimistic about the industry's prospects. As a second wave of mental health technology begins, companies are seeing that success requires some changes to the business model.

For one, outlining a clear path to profitability is particularly important for technology companies in the health care space, Cooper said, where factors such as insurance and licensing rules can limit potential profits. One way to plan effectively is to integrate clinical founders, leaders, researchers, and strategists from the outset.

"Companies who did not have clinical leaders or founders have really had to backtrack over the years, so the ones that are just getting started are learning from that," Nikiforova said.

Mental health startups without clinical leadership have struggled on the business side, and some have even made legal and ethical missteps. In 2023, mental health chat service Koko sent its users responses written by GPT-3 without getting their informed consent, then defended the decision to do so. Other

companies repurpose online resources intended for individual therapists in a way that could be seen as plagiarism, Jackson said. And many do not understand the complexities of mental health licensing restrictions and interjurisdictional practice.

"A lot of people in the tech space think they're disrupting health care, but [true mental health innovation] is much larger than creating a new app," Jackson said. "It's not the simple fix that people think it is."

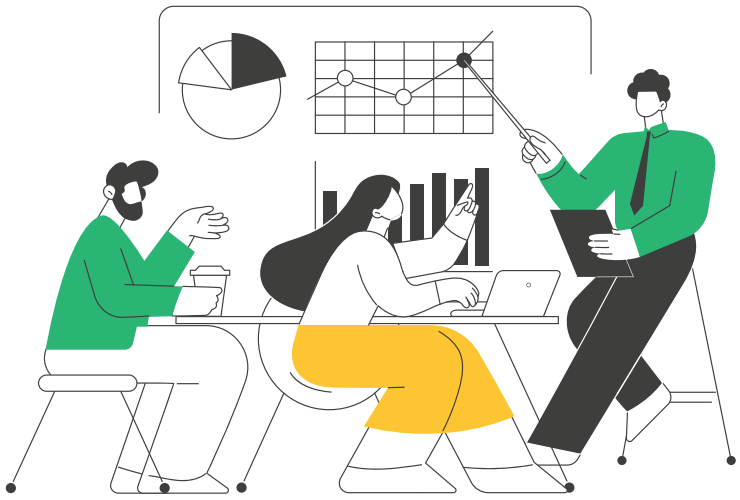
Mental health technology companies are increasingly being founded by clinicians or adding clinical leadership in their first few hires, Nikiforova said. Examples include Nema Health, Appa Health, and Instride Health. Rather than starting a technology company that addresses mental health, new startups are launched as mental health companies that leverage technology to reach more people.

Investors are also more cautious, seeking proof of how a new product will benefit patients, save money, or address an unmet need. That's leading startups to place a focus on research that demonstrates clinical efficacy from the beginning, which presents another opportunity for psychologists.

"Most mental health tech companies honestly don't know what's under their hood," Nikiforova said, and could benefit from guidance on what data to collect and how best to utilize it. "There's a lot of data they aren't using, and some aren't measuring the right things."

Even with these encouraging signs, Scult concedes that layoffs may be a reality of startup culture that cannot be entirely avoided. Rather than cutting clinicians entirely, though, he suggests that companies consider ways to shift them into other roles—for instance, into marketing or operations.

"That way, even if a company can't afford a robust clinical team, they won't lose all of their clinical expertise," he said.



VISUAL GENERATION INC/GETTY IMAGES

More startups are focusing on clinical efficacy, which presents opportunities for psychologists.

RAMPING UP TRAINING

For psychologists looking for work in digital mental health, job prospects may remain slim for a while.

"We have this perfect storm of more people than ever wanting to get in, more people being laid off and entering the job market—and frankly, we need fewer companies," Cooper said.

But the layoffs could present an opportunity to ramp up training opportunities if psychologists with expertise in mental health can loop back into academia, he said, then inject their expertise into academic literature and psychology courses. Most graduate programs provide little training on skills needed to work in tech, such as navigating electronic medical records, or guidance on what to expect from the industry.

"Individuals are transitioning and starting careers without having a clear career path. That can be very exciting, but also very daunting," Nikiforova said.

Therapists in Tech is working to change that, with career development, mentorship, and advocacy efforts, as well as an extensive database of company reviews, which includes details about compensation, company culture, and how legal and ethical issues are handled. In addition to clinical and research roles, psychologists are working in operations, product management and design, software development, customer success, and content development, which hints at other possible paths into the industry. Meanwhile, the MHTAC is exploring how APA can shape the field of mental health technology and better support psychologists who hold or seek roles in digital mental health.

"Despite the rough sailing ahead, I still believe in the ability for technology to enhance how we address mental health concerns," Cooper said. "This crisis isn't something we can train our way out of, so we're going to have to expand our reach. Technology remains one of the best ways to do that." ■

FURTHER READING

The big blunder happening right now in digital mental health
Scult, M.
Medium, August 2023

Digital therapeutics and mHealth
APA, 2023

NEWPORT HEALTHCARE

Industry-Leading Mental Healthcare for Ages 12–35

We treat:

- Anxiety and OCD
- Depression
- Trauma and PTSD
- Bipolar disorder
- Personality disorders
- Substance use disorder
- Eating disorders/ disordered eating
- And more

We offer:

- Tailored treatment plans
- Integrated, evidence-based approach
- Psychiatric care and medication management
- Individual, group, and family therapy
- Accredited academic curriculum and life skills training
- Gender-inclusive programming

Residential and Outpatient Locations Nationwide

Insurance Accepted

newporthealthcare.com or **866-534-1042**

WHAT'S AHEAD FOR

CLINICAL PRACTICE

Many key issues in the practice of psychology center around technology and telehealth

BY STEPHANIE PAPPAS

NICKY LLOYD/GETTY IMAGES; RENATA ANGERAMI/GETTY IMAGES; LUIS ALVAREZ/GETTY IMAGES; JOVAN GEBER/GETTY IMAGES

SU ARSLANOGLU/GETTY IMAGES

Telehealth is settling into a new normal, but new policies around reimbursement and data privacy are still being hammered out. Practice across state lines is continuing to expand.

TELEHEALTH ENTERS A NEW NORMAL

The COVID-19 pandemic threw telepsychology into overdrive overnight. Now, nearly 4 years later, the practice of psychology at a distance is settling into a new normal, but new policies around reimbursement and data privacy are still being hammered out.

The federal Public Health Emergency (PHE) enacted at the onset of the coronavirus pandemic expired in May 2023. Prior to the PHE, Medicare and Medicaid reimbursed for telehealth at a lower rate than in-person therapy, said Stephen Gillaspy, PhD, senior director of the Office of Health and Health Care Financing. Under the PHE, these rates were made equitable. Now that the PHE has expired, the Centers for Medicare & Medicaid Services (CMS) has announced that the agency will continue to pay for telehealth and audio-only mental health services at the same rate as in-person.

"That's very positive," Gillaspy said.

But questions remain about psychological and neuropsychological testing via telehealth. These were included in reimbursement under the PHE, and CMS has extended waivers to continue to reimburse for them via telehealth for the time being. Whether that policy will persist long term, however, is not clear, Gillaspy said.

On the state and private insurance levels, the policies are mixed, but there seems to be an acceptance of the fact that many practitioners are moving to a hybrid model: seeing patients in-person at times and virtually at others, Gillaspy said. A survey this year by the New York State Psychological Association found that 96% of respondents reported delivering at least some services via telehealth. The respondents were not a representative sample of all psychologists—or even all New York psychologists—said Barbara Meehan Reyes, PhD, a clinical psychologist and the chair of the Psychology Interjurisdictional Compact (PSYPACT®) Subcommittee for the association, but the overwhelming number hints at how common telepractice has become.

There has been some concern that if payers saw practitioners moving en masse to virtual-only practice, they might slash reimbursement rates, because those practitioners would no longer be maintaining a physical office and have reduced practice expense, Gillaspy said. So far, however, that does not seem to be the most common arrangement. "When I talk to insurance companies and regulators, I talk about how the vast majority of people are going to continue to provide the full array of services," he said. "Most people think about services in which the default is in-person, but with telehealth as an option."

Closing a physical office can also be a challenge, because using one's home address as a business address enters it into the public record, which can be undesirable for many mental health practitioners. Several insurance companies and Medicare require the use of physical addresses for providers and will not accept a P.O. box or a UPS-center address, said Marnie Shanbhag, PhD, senior director of the Office of Independent Practice at APA. "You're going to have to think about how comfortable you are with your home address being on your billing," she said.

Another perennial concern for telehealth is privacy. Earlier this year, Zoom rolled out a plan to leverage user data for artificial intelligence (AI) training, which they had to walk back after user outcry, said Deborah Baker, JD, director of legal and regulatory policy at APA. Instances such as that raise questions about how to govern the use of big data. "Our members are becoming more sensitive to the use of data, and what the limits are in terms of technology in practice," she said.

The U. S. Department of Health and Human Services has issued several invites for public comment on these data and security issues in telehealth in the last year, Baker said, while several states have enacted consumer data privacy laws that are stronger than what HIPAA alone would mandate. As a result, many telehealth platforms now issue additional protections for residents of those states. Patients, too, are becoming savvier about the policies of the tech tools they engage with, Baker said.

"Now users are starting to be more thoughtful and read the fine print about how data is being used a little more closely," she said.

PSYPACT WIDENS PRACTICE ACROSS STATE LINES

PSYPACT now encompasses 39 states, enabling participating psychologists to see patients across state lines without having to get separate licensure in each

state. A 40th state, Vermont, has enacted PSYPACT legislation and will become active this year.

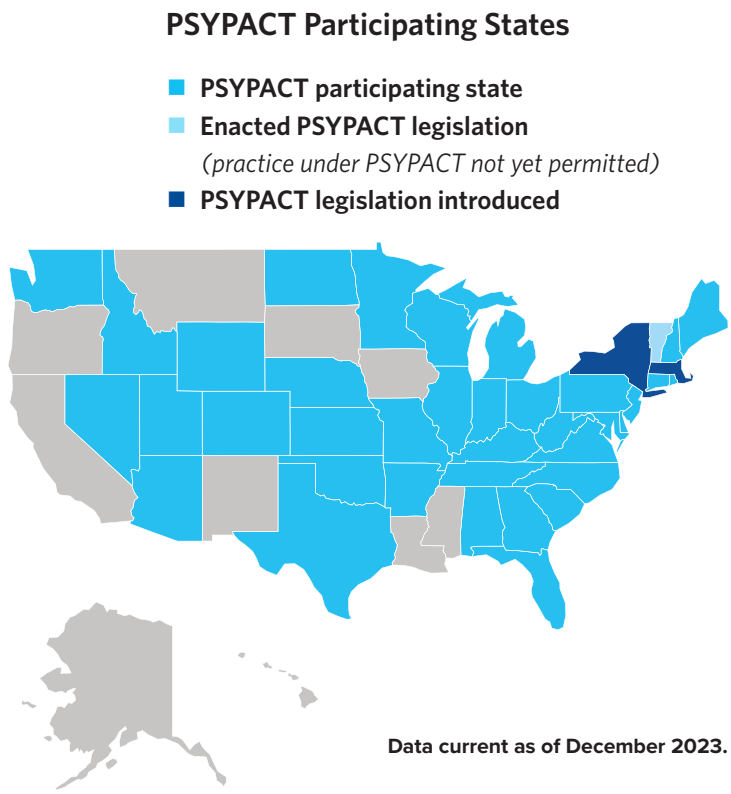
The compact has been adding roughly six members a year in recent years, said Janet Orwig, executive director of the PSYPACT Commission, the compact's governing body. This rate will likely slow, given the relatively few states and territories left outside of PSYPACT, Orwig said, but there is still interest in these areas.

"Folks are providing an increasing amount of mobile services to an increasingly mobile population," said Reyes.

New York has not yet enacted PSYPACT but was one of two states, along with Massachusetts, with active PSYPACT legislation in 2023. In New York, Reyes said, the association is currently seeking a majority lead sponsor in both legislative houses for the bill, which is necessary for moving legislation through the New York state system. Other states, including Mississippi and Hawai'i, had bills in committee in 2023, but time ran out in the legislative session before they could come up for a vote. Hopefully, Orwig said, those bills will be reintroduced in 2024. In all, 12 states saw PSYPACT bills in 2023, and 6 enacted them.

The New York State Psychological Association began pursuing membership after a "groundswell of interest" from members, Reyes said. "It really is far less cost-prohibitive and far less logistically challenging to practice with PSYPACT than it is to pursue licensure in multiple states," she said.

New York psychologists have a patient base prone to cross state lines, Reyes said. Patients may live in Connecticut, work in New York, and have a second house in a third state, Reyes said, or they may commute as far away as Washington, D.C. PSYPACT is also helpful when a patient moves out of state permanently, Reyes said; they can continue receiving care from the provider they've already built rapport with, or at least have a cushion before transferring to a psychologist in their new state.



Data current as of December 2023.

"What we have heard most from our members is that their client base was increasingly more mobile, and they are finding it difficult to provide ongoing service and continuity of care," Reyes said.

Many of the challenges to adding additional states to the compact are a matter of education and outreach for local legislators, Orwig said. Especially in states that don't have compacts for other professional licensures, PSYPACT can be new territory. New York is one of those states, Reyes said, which means that policymakers have to consider the possible impacts on other professions and on the regulatory framework surrounding licensing before they set final rules.

PSYPACT is currently working on developing its first strategic plan, Orwig said, beginning with surveys of the individual practitioners who hold PSYPACT authorization. One theme, she said, is that PSYPACT allows psychologists in specialty areas to expand their reach, bringing their services to patients who would not otherwise have options in their regions. As a result, PSYPACT is helping address the psychologist shortage, said Shanbhag.

"Maybe the pediatric psychologists in our state are booked out several months, but you can get one in the neighboring state in 3 weeks," she said. "It helps you get care much more quickly, and you can get much wider access for specialty care."

There are still implementation questions around PSYPACT and billing, said Baker. It can be tricky to navigate payment when a provider is in-network for a national insurance company but not in-network in any of that company's plans in the state that they are practicing in remotely. APA has begun educational

outreach to payers in order to understand their level of awareness of any provider policies around PSYPACT.

"My hope is that interjurisdictional practice is becoming more streamlined under PSYPACT, and more resources are made available to psychologists practicing under PSYPACT, so providing care across jurisdictional lines is easier," Baker said.

Ultimately, Orwig said, it's unlikely that every single state and territory will join PSYPACT; it's rare for any cross-state compact to achieve universal reach. And she expects to continue adding new PSYPACT members at a slower rate going forward.

"If we can add one or two per year going forward," she said, "that will be really excellent."

AI'S GRADUAL INTEGRATION INTO PRACTICE

As machine learning grows more powerful, researchers and health systems are starting to explore bringing AI into practice. However, while some tools are already being used by larger organizations to help streamline administrative tasks, it's still uncommon to see AI digital therapeutics used in direct patient care. (See more on AI applications on page 8.)

"We don't have a lot of saturation of these products in the hands of clinicians because there's just not a reimbursement pathway yet," said C. Vaile Wright, PhD, senior director of the APA Office of Health Care Innovation. "The products exist, but how much they're being used is unclear."

Unlike health and wellness apps that are prohibited from making medical claims about their outcomes, digital therapeutics are under the purview of the U.S. Food and Drug Administration, Wright said. But the health care regulatory and reimbursement systems are not designed for innovative products or for the idea of software as a medical treatment, she said. That has led to slow implementation even as companies and academic researchers develop algorithms for everything from matching patients with potential providers to monitoring of passive suicide ideation. Expanding the use of AI as a tool in practice will likely require careful testing, a rethinking of regulatory categories around innovative technologies, and the cultivation of trust in technology from both clinicians and patients.

"I don't think we're quite ready for AI or similar approaches to be used in direct care without human oversight, but there are a lot of exciting opportunities for AI in supporting the care that is being provided by trained professionals," said Victoria Bangieva, PhD, a clinical psychologist who advises technology companies developing mental health tools, as well as a member of APA's Mental Health Technology Advisory Committee. "That's what we're seeing happen."

For instance, HIPAA-compliant services such as Mentalyc or Eleos will transcribe session transcripts into insurance-ready progress notes, reducing the time therapists must spend on non-patient-facing activities. Some larger systems are also using algorithms to match patients to the provider most likely to suit their needs, Bangieva said. Some services are also used to coach clinicians, giving them suggestions of which treatment paths to pursue. In the United Kingdom, the National Health Service is using Ieso, a service founded by two psychologists for providing online typed therapy. The company is working to use AI to analyze what human therapists write in these sessions and tie it to outcomes, in the hopes that AI can help therapists understand which concepts and phrasings are most effective.

"There is a lot of excitement around AI, but we're still quite early on, and there needs to be a bit more validation of the models and the different tools that are being built," Bangieva said, particularly in a real-world environment. AI always carries a risk of perpetuating preexisting biases, Wright said—if bad data go in, bad data come out.

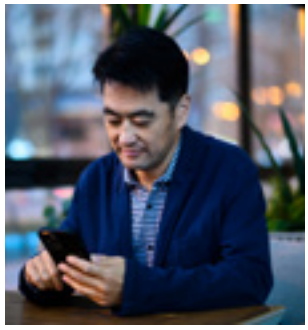
"Algorithms are written by people," she said, "and if you've got people with biases using data that's biased, what are the unintended consequences in perpetuating what is already an inequitable system?"

Nevertheless, these tools are important to pursue, she said, because there are simply not enough providers to handle the mental health need without additional help. There are efforts underway to create a framework around both data management and reimbursement for the use of these tools. Earlier in 2023, CMS solicited a request for information about digital therapeutics from stakeholders. A response to those comments outlining next steps from the federal payer is expected at the end of 2023, Wright said.

A final hurdle for the development of AI in mental health right now involves training, said Ross Jacobucci, PhD, an assistant professor of psychology at the University of Notre Dame, who is working on a project using machine learning to monitor suicide risk using screenshots of people's cell phone activity. There are relatively few people who are trained in both big data and psychology, Jacobucci said, and most psychology graduate programs lack the in-house statistics classes needed to work in machine learning. Students who want to work on the tool-development side should look to outside workshops on artificial intelligence and machine learning, he said. Fortunately, more and more graduate programs are providing funding for students to get that expertise from third parties, he added.

"It's really difficult for a clinical person to speak to somebody in computer science if neither of them has worked with the others' type of data," Jacobucci said. "I do think there are a lot of people with the skill set that want to work with both." ■

Psychology Is Improving



Brain Health and Aging

Researchers are developing new interventions that can help prevent, identify, and manage cognitive decline

BY ASHLEY ABRAMSON

FG TRADE/GETTY IMAGES, YOUNG777/GETTY IMAGES, GABRIJELAGAL/GETTY IMAGES, VALERIA BLANC/GETTY IMAGES, MAREEN FISCHINGER/GETTY IMAGES, LAUREN MULLIGAN/GETTY IMAGES, GRANDRIVER/GETTY IMAGES

With an increasing percentage of Americans aging into the over-65 category, there is a growing need for science-based therapies to help slow, prevent, and treat the cognitive changes that can affect people's aging brains. At the same time, geropsychologists, who specialize in treating older adults, are in short supply: APA estimates that the United States will need nearly 6,000 more of these specialists by 2030.

To support the expanding need to maintain and improve brain health, researchers are developing interventions that can help prevent, recognize, and treat mild cognitive impairment, dementia, and Alzheimer's disease.

Here are four recent developments in the field of brain health that carry the potential to dramatically improve our quality of life as we age.

SLOW-PACED BREATHING INTERVENTIONS

Sympathetic nervous system activity, associated with the stress response, tends to be higher in older adults—and it's linked with an increased risk of dementia. Researchers are studying how to help adults flip the nervous system's switch from stress to relaxation.

Biofeedback exercises involving slow-paced breathing are one way to modulate heart rate and potentially prevent the sympathetic system from negatively impacting the brain, according to Mara Mather, PhD, a professor of gerontology, psychology, and biomedical engineering at the University of Southern California.

In a clinical trial, Mather and her collaborators studied breathing interventions in adults between 65 and 80 years old with the goal of increasing heart rate variability, a measure of parasympathetic activity. Those who practiced slow-paced breathing to a metronome until they achieved deep relaxation had lower rates of anxiety and depression than the steady breathing group. In their blood, they also had lower levels of amyloid-beta, a small peptide that can accumulate in the brain to form the amyloid plaque that is one defining feature of Alzheimer's disease (*Scientific Reports,* Vol. 13, 2023).

While manipulating heart rate variability clearly impacts Alzheimer's biomarkers outside of the brain, researchers do not yet know how it affects the brain itself. Mather's lab is working on a second clinical trial exploring how manipulating heart rate variability can impact the brain itself through examining MRIs.

In the same study, older adults who participated in the slow breathing intervention also showed increased volume in subregions of the hippocampus, a part of the brain that is critical for memory processes and shows declines early in the Alzheimer's disease process (*Neurobiology of Aging*, 2023). Mather's work suggests that focusing on reducing stress through breathing could be an intervention to prevent or slow Alzheimer's progression—and it's something anyone can do.

"Slow-paced breathing may be able to slow the early stages of Alzheimer's disease in adults who are still cognitively healthy," said Mather. "If so, this simple relaxing technique could be a low-cost and low-risk way to reduce risk of the disease."

SMARTPHONE TOOLS AND TRAINING

As technology advances, so does evidence that effectively using it can help people cope with the impact of cognitive decline—and even help prevent it. Michael K. Scullin, PhD, associate professor of psychology and neuroscience at Baylor University in Waco, Texas, helped develop a behavioral randomized controlled trial to train people between 55 to 92 years old with mild dementia to use smartphones.

The researchers focused on helping participants set recurring appointment reminders as a way to improve quality of life. "People affected by dementia often have a challenge with prospective memory, or the ability to remember to do things in the future," Scullin said. In his study, care partners—such as the participant's spouse, adult child, younger relative, or hired nurse—reported that participants with cognitive decline had improved independent functioning across a month timespan (*Journal of the American Geriatrics Society,* Vol. 70, 2022).

Scullin's team recently received funding for a Phase 2 trial of 200 participants over 6 months. Half of the participants are from digitally disadvantaged backgrounds, such as rural areas without internet access or homes without computers. "We want to know how to use these devices in a way that's most effective at preserving daily functioning and overall health in individuals living with diseases," said Scullin.

While Scullin's work focuses on improving quality of life in those with impaired cognition, he theorizes using digital devices can also be a protective factor in cognitive health, contributing to a cognitive reserve in aging people—the more mentally active someone is, the more likely their cognitive abilities will be preserved (Wolff, J. L, et al., *Journal of the American Geriatrics*

"Alzheimer's pathology accumulates in a person's brain for many decades, so it's important to slow that down as much as possible. Interventions that healthy people can do in their 50s or even earlier could be really beneficial and exciting."

MARA MATHER, PHD, PROFESSOR OF GERONTOLOGY, PSYCHOLOGY, AND BIOMEDICAL ENGINEERING AT THE UNIVERSITY OF SOUTHERN CALIFORNIA

Society, Vol. 69, No. 7, 2021). Technology also encourages social connection, which can promote better cognition, and provides ways to better cope with daily difficulties, such as forgetting about appointments or medication.

Andrew Kiselica, PhD, assistant professor of health psychology at the University of Missouri, also studies smartphone use among aging people with cognitive impairment. He received a career development award from the National Institute on Aging to develop an intervention that helps patients and their caregivers access affordable technology and implement individualized technology-based solutions to reach care goals. To do so, the intervention includes occupational therapy strategies to help people choose, set up, and troubleshoot their technologies. In this way, caretakers can choose the technologies that best work for them. For example, caretakers might use a shared calendar with their loved ones to remind them of appointments, lightening their own caregiving load. The intervention can be delivered by any master's-level behavioral or occupational health provider.

HALFPOINT IMAGES/GETTY IMAGES

As the percentage of older adults increases, there is a growing need for science-based therapies to slow, prevent, and treat cognitive changes in older adults, particularly related to mild cognitive impairment, dementia, and Alzheimer's disease.

Kiselica is seeking funding for a feasibility trial to take place through the broader University of Missouri health system. He's also working on a pilot study with collaborators from the University of Missouri Extension's health and wellness program for older adults involving a tech-focused intervention that helps people glean cognitive benefits from smart technologies before they develop symptoms of cognitive impairment.

VIRTUAL BRAIN GAMES

Adam Gazzaley, MD, PhD, founder of Neuroscape, a translational neuroscience center for technology creation and scientific research, sees technology as a form of medicine for cognitive decline. "We don't have perfect drugs; some people don't respond and they have side effects. My goal is to come up with [effective technologies] and validate them," he said.

Gazzaley, a professor in neurology, physiology, and psychiatry at the University of California, San Francisco, focuses on creating and studying therapeutic tablet-based and virtual reality games that improve attention ability. Some studies focus on older adults, homing in on the evidence that games can improve cognitive function that often declines with age (*Nature Aging,* Vol. 2, 2022). The video games Neuroscape creates are adaptive, closed-loop games, which means the challenges and rewards adjust in real time based on ability according to user data, unlike most consumer games. If someone answers questions slowly, the games

start out easier and progressively get more difficult. If someone needs more of a challenge, the game follows suit.

One game developed and studied at Neuroscape is *Neuroracer*, a video game that was shown to improve attention in older adults (*Nature*, Vol. 501, 2013). It is the first and only FDA-authorized treatment delivered through a video game experience. Some of Neuroscape's games are in the research phase, but Gazzaley hopes to eventually scale them so medical providers can either prescribe them or patients can use them over the counter in tandem with psychological treatment. "We'll have a whole set of technological tools that will complement standard approaches, like pharmaceuticals and behavioral therapy," he said.

DIGITAL COGNITIVE ASSESSMENTS

Games can be useful to help preserve cognition, but some people may benefit more from non-gamified cognition tasks. "For some people, games can provide motivational structure," said Aaron Seitz, PhD, professor of psychology at Northeastern University in Boston and director of the Brain Game Center for Mental Fitness and Well-Being at the University of California, Riverside. "But for others, it may be overwhelming or distracting to see all these things happening on a screen, and then the game isn't as helpful," he added.

Seitz's work focuses on creating digital apps that measure individual differences in cognition—for example, how well someone can accomplish tasks that involve distractions—and suggesting potentially beneficial interventions, games or otherwise. His goal is to better understand how factors like cognition, lifestyle, cultural experiences, and overall health affect how people interact with different interventions. That way, he and his team can better predict the most useful individual treatments.

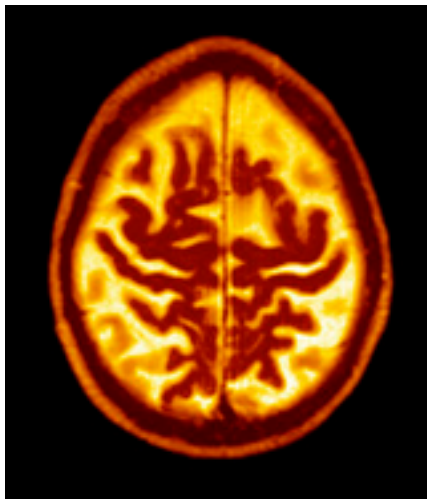
Seitz's lab has created several games designed to address individual needs. One memory app he is currently studying is called Recollect, available for free in the Apple and Android app stores. Recollect requires users to employ their working memory to recall a series of colors presented on the screen. Another version of Recollect has the same premise, but it uses an astronaut collecting colored gems in space.

The lab has also created digital assessments that could be useful to psychologists and other clinicians, such as an app called PART (portable adaptive rapid testing) that evaluates focused attention and working memory. Rather than going to a clinic or hospital, people will be able to participate in cognitive testing at home on their devices. Currently, the app is available for free to researchers studying cognition, but Seitz hopes to share it publicly in the future.

This type of testing also allows clinicians to gain a deeper understanding of a person's cognition because it tracks how long it takes for someone to answer a question and whether they change their response. "Digitizing assessments doesn't just get rid of paper but also helps the clinician collect more useful data to help the person on an individual level," said Seitz.

Given all the progress in research about cognition and the aging brain, there is reason to be hopeful about the future. These and other brain researchers are looking forward to fine tuning and scaling up their interventions so that more people can access resources that benefit their brain function before they develop cognitive impairment.

"Alzheimer's pathology accumulates in a person's brain for many decades, so it's important to slow that down as much as possible," said Mather. "Interventions that healthy people can do in their 50s or even earlier could be really beneficial and exciting." ■



BSIP/GETTY IMAGES

A brain scan shows how the cortical gray matter is affected in late-onset Alzheimer's disease. Research suggests that reducing stress may help prevent cognitive decline.

FURTHER READING

Digital methods for performing daily tasks among older adults: An initial report of frequency of use and perceived utility
Benge, J. F., et al.
Experimental Aging Research, 2023

Does 'brain training' actually work?
Jaeggi, S. M., et al.
Scientific American, 2020

Integrated cognitive and physical fitness training enhances attention abilities in older adults
Anguera, J. A., et al.
NPJ Aging, 2022

Leisure-time sedentary behaviors are differentially associated with all-cause dementia regardless of engagement in physical activity
Raichlen, D. A., et al.
PNAS Psychological and Cognitive Sciences, 2022

The integrity of dopaminergic and noradrenergic brain regions is associated with different aspects of late-life memory performance
Dahl, M. J., et al.
Nature Aging, 2023

monitor on psychology

A publication of the American Psychological Association