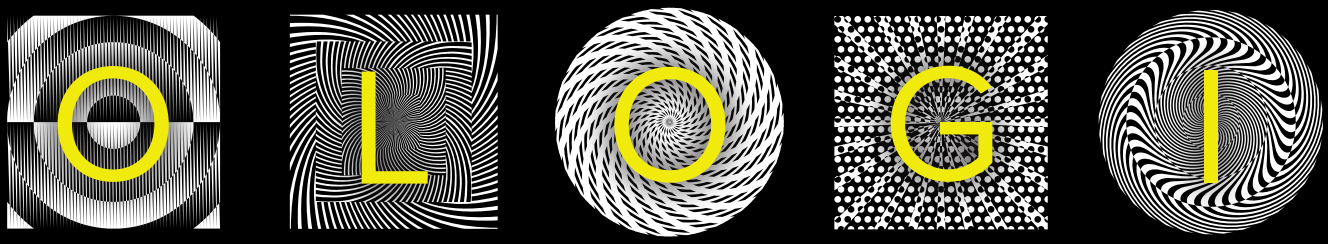
A PUBLICATION OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION • JUNE 2022

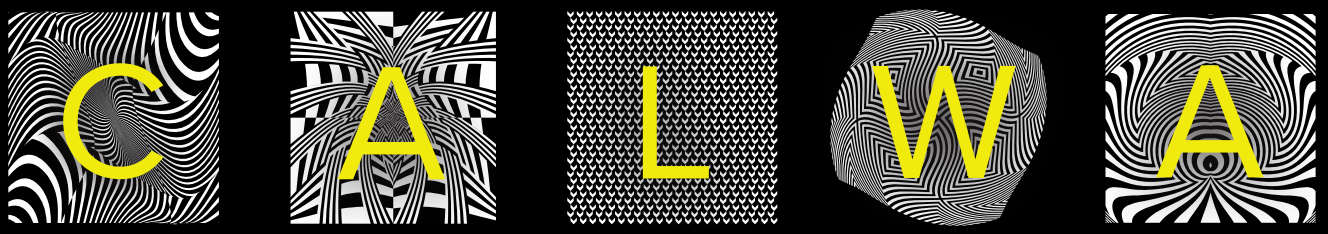
monitor on psychology

GST# R127612802

SOCIAL MEDIA DISINFORMATION AND MANIPULATION



ARE CAUSING CONFUSION, FUELING HOSTILITIES, AND AMPLIFYING



THE ATROCITIES IN UKRAINE AND AROUND THE WORLD

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PLUS

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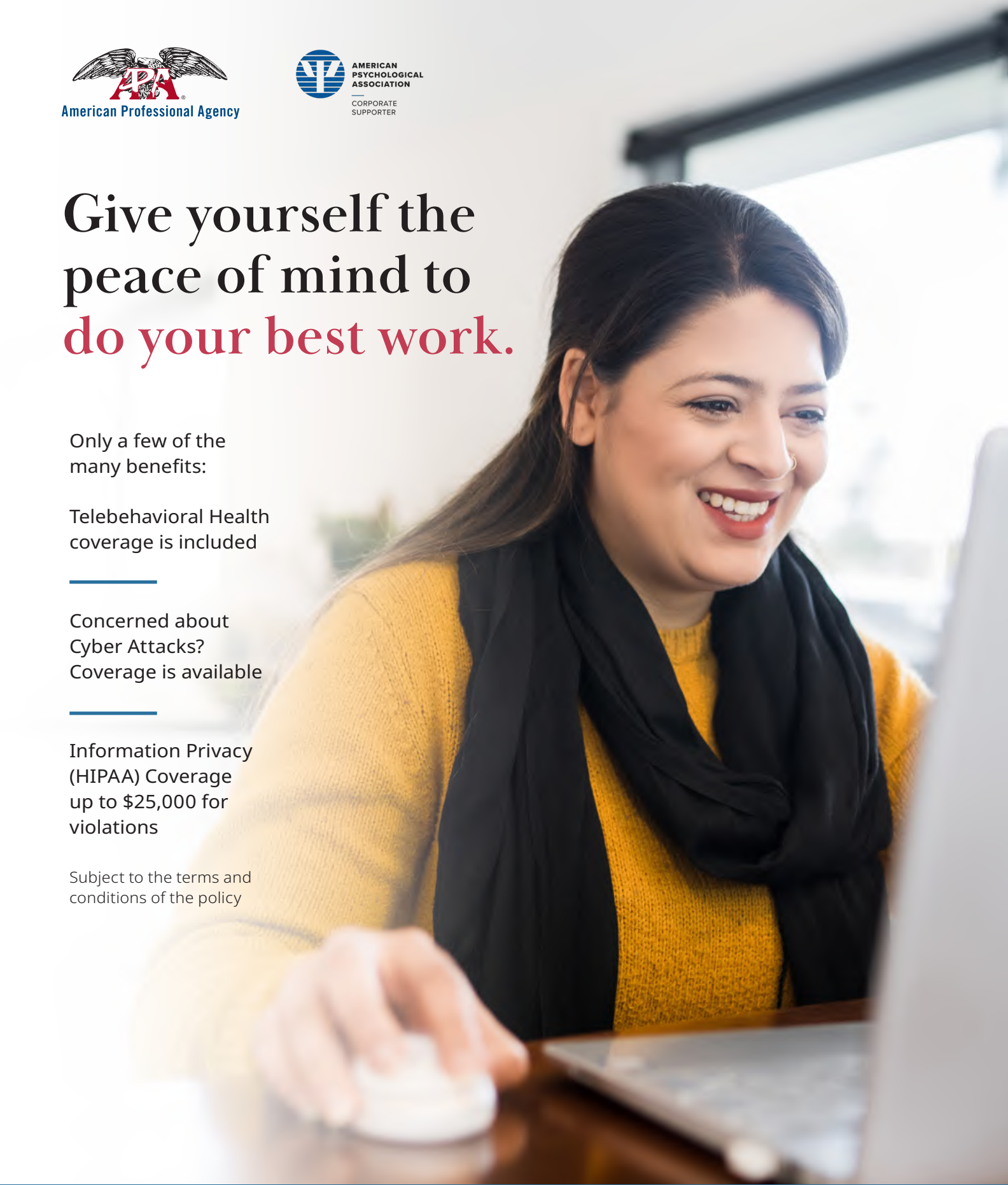

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RESOURCES, OPPORTUNITIES, AND NEWS FOR PSYCHOLOGISTS FROM APA

TAKE ACTION

Promote Equity in Your Work and Beyond

APA has launched a **new series of monthly actions** to encourage psychologists and students to advance equity, diversity, and inclusion throughout the science and practice of psychology. APA is announcing a new action each month paired with resources, further reading materials, and other tools for effecting change. The first action encourages psychologists to "Build Safe Spaces With Inclusive Language" using APA's new Inclusive Language Guidelines that are rooted in psychological science and developed to raise awareness of culturally sensitive terms and phrases that center the voices and perspectives of people who are marginalized or stereotyped. Read the guidelines at www.apa.org/about/apa/equity-diversity-inclusion/language-guidelines. Other actions encourage learning more about the pervasiveness of White privilege, embracing cultural humility, and more.

Find them all at www.apa.org/about/apa/addressing-racism/monthly-actions.

ELECTION

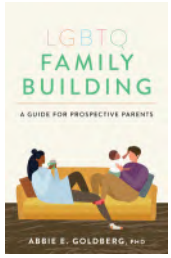
Meet the Candidates for APA President

APA members have nominated four psychologists to run for the association's presidency. The winning candidate will serve as the 2023 president-elect and the 2024 president. The candidates in order of their number of nominations are:

Cynthia de las Fuentes, PhD
Diana L. Prescott, PhD
Beth N. Rom-Rymer, PhD
Kirk J. Schneider, PhD

The candidates will be answering questions about their experience and priorities at www.apa.org/about/governance/elections/president-elect-candidates. Voting opens Sept. 15.

Read, Watch, & Listen



1

LGBTQ Family Building: A Guide for Prospective Parents

This new APA book provides LGBTQ parents and prospective parents with detailed, evidence-based guidance on overcoming barriers and stereotypes and on navigating the transition to parenthood.

Go to www.apa.org/pubs/books/lgbtq-family-building.

2

Retraining the Brain: Applied Neuroscience in Exposure Therapy for PTSD

This hourlong webinar on June 3 will bridge the gap between the newest neuroscience research on post-traumatic stress disorder (PTSD) and the treatment of patients with PTSD. Register at http://at.apa.org/applied-neuroscience.

3

Is technology killing empathy?

Sherry Turkle, PhD, of the Massachusetts Institute of Technology, joins APA's *Speaking of Psychology* podcast to talk about how people's conversations have changed in the digital age, and how computers and artificial intelligence are affecting how we think about what it means to be human. Listen wherever you get your podcasts.

TOP LEFT: CHARDAY PENN/GETTY IMAGES

How to Reach Us

Answers to many of your questions may be found on APA's website: www.apa.org; **for phone service,** call (800) 374-2721; **send story ideas or comments** to Monitor@apa.org.

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Advance registration fees are in effect until June 30.

Learn more and register at convention.apa.org.

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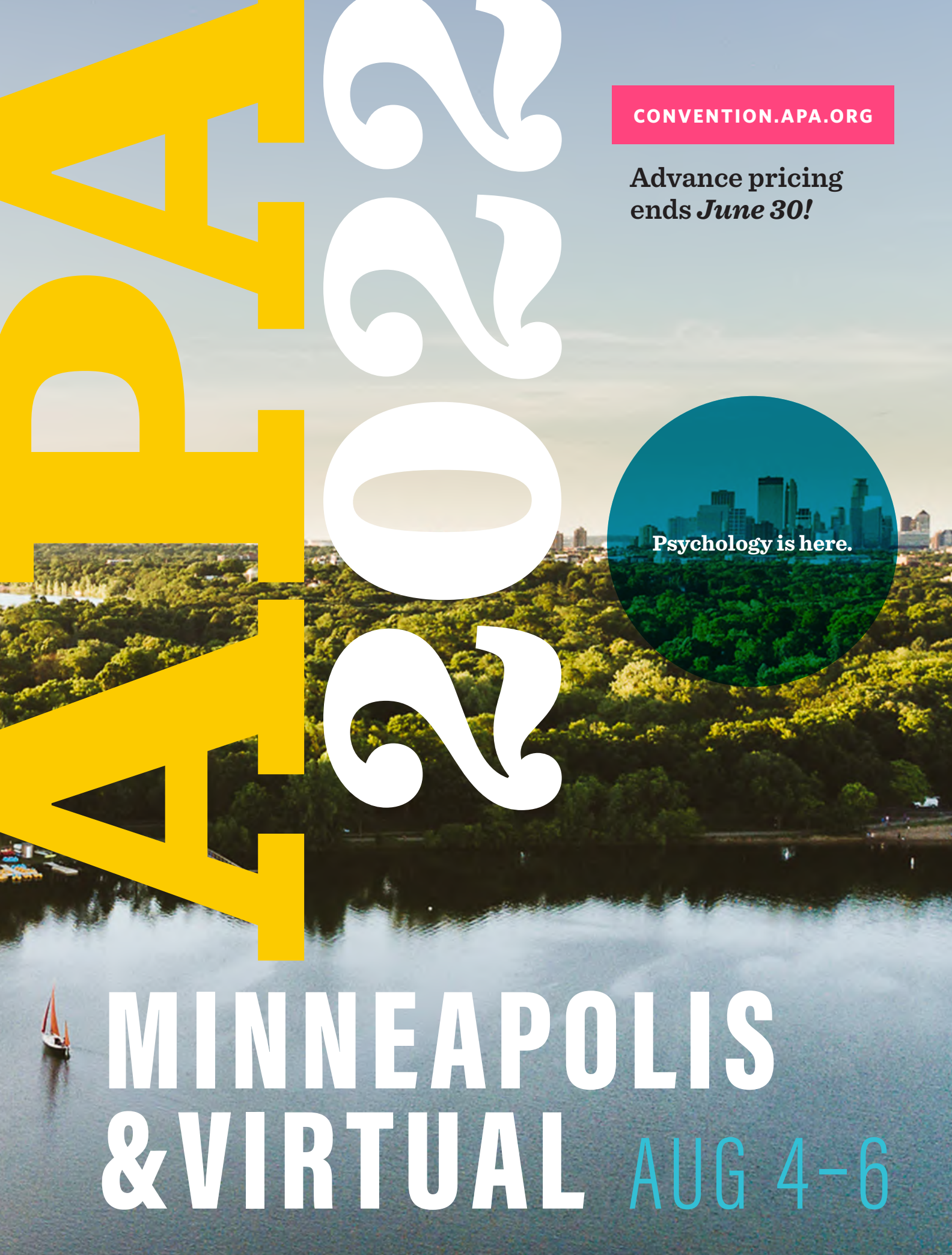
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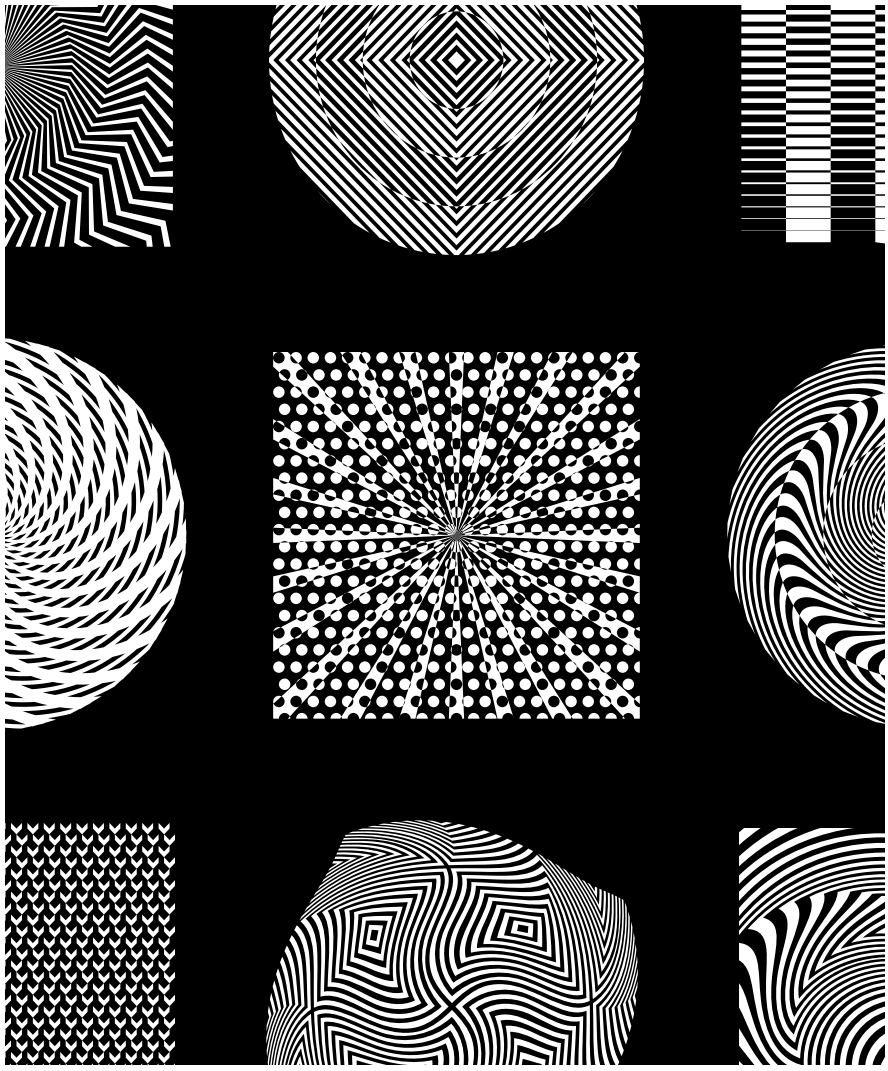
Features

COVER STORY

PSYCHOLOGICAL WARFARE IN THE 21ST CENTURY

Social media disinformation and manipulation are causing confusion, fueling hostilities, and amplifying the atrocities in Ukraine and around the world. Psychologists—along with experts in political science, computer science, and national security—are fighting back.
See page 18



ON THE COVER: ILLUSTRATION BY YOSHI SODEOKA

Departments

Lose sleep, crave sweets.
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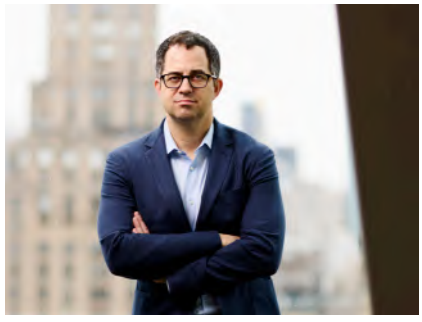
FEATURE

TREATING PATIENTS WITH LYME DISEASE

Research shows the tick-borne disease can lead to serious mental health problems, especially if left untreated. Many patients report ongoing or intermittent symptoms at least a year after completing antibiotic treatment. Psychologists are among those working to improve the outlook. *See page 66*

Decisions during COVID. Page 28



Attacked by misinformation. Page 22

Great research talks. Page 75

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MOVING US BEYOND 'FIRSTS'

Expanding our views on cultural identities makes our society more equitable

BY FRANK C. WORRELL, PHD

Who am I? What groups do I belong to? What does my group membership say about me in this society? These are fundamental questions about our identities and the contexts in which we live. Am I extroverted or introverted? How competent do I feel in various domains? Do I believe that I will be successful in my academic and vocational endeavors? If I encounter barriers, do I have the wherewithal to find alternatives to achieve my goals? Personality, competence, hope, and self-efficacy are just a few of the psychosocial characteristics that shape our personal identities and affect how we interpret and interact with the world.

But as developmental psychologist Erik Erikson noted decades ago, our personal identities are shaped not only by internal forces, but also by the groups that we belong to and the responses to us and to our groups in the contexts in which we all live. Is my ethnic group a numerical majority or minority? Is my primary language the one that is spoken by most members of the society in which I live? Are there limitations on what I can do based on my religion, sexual orientation, gender, social class, ethnicity, or disability? Many individuals' views of their capacity to succeed in some domain is tied to the extent to which they see individuals like them in the domain. Indeed, the greater the diversity in a society, the more important the issue of representation becomes, especially for children and adolescents who have not yet had their dreams delimited.

This July 4 will be the 246th anniversary of the Declaration of Independence and our country is still celebrating a lot of firsts—with many more to come. Earlier this year, Madeleine Albright, the first woman to serve as U.S. Secretary of State, passed away. The Senate confirmed the first African American woman to serve as a Supreme Court Justice, Ketanji Brown Jackson. We can add other firsts to this list: Kamala Harris, Barack Obama, Pete Buttigieg, Deb Haaland, Mazie Hirono, Sonia Sotomayor, and more. Let us continue to work to get past the firsts to the seconds and the thirds, so that individuals from all backgrounds see themselves—and their identities—represented at all levels of society to give meaning to the phrase, I see you: Sawubona, Sanibonani. ■

ANDREW HARNIK/AP PHOTO

President Joe Biden and Vice President Kamala Harris applaud Judge Ketanji Brown Jackson at an April 8 White House event celebrating Jackson's confirmation as the first Black woman to become a Supreme Court Justice.

● **Frank C. Worrell, PhD,** is the 2022 APA president and director of the School Psychology Program in the Graduate School of Education at the University of California, Berkeley. Follow him on Twitter: @FrankCWorrell.

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MEETING MENTAL HEALTH NEEDS REQUIRES LEADERSHIP

As the world pays more attention to mental health, APA is positioning itself to evolve

BY ARTHUR C. EVANS JR., PhD

APA's recent Stress in America survey reflects what many of us are seeing ourselves—a nation struggling to deal with the exacerbation of mental health problems over the last two years. With this issue in the national spotlight, the field of psychology and broader society have an unprecedented opportunity to shape the future of mental health—including strengthening our infrastructure, increasing the coordination of care, ensuring equitable access to resources, and more actively promoting people's mental wellness.

How do we rise to this moment and envision a better future for mental health? Each of us can play a role with three actions below that we, as an association and a field, should take to ensure this progress.

Reconceptualize our approach. Recovering from the pandemic means both managing the physical virus and addressing the accompanying psychological impacts. We cannot rely on treatment alone to fix these challenges. We must re-envision what it means to improve people's mental health along a continuum and expand our strategies to include more early intervention and prevention. APA's Council of Representatives, for instance, recently adopted a policy to guide our advocacy for population health and psychology's role in advancing this perspective.

Embrace the momentum. Shaping the future of mental health will require evolving the way we think about several issues: Where are broad shifts and trends in areas like health care financing and technology going in the next decade? Can psychology see these changes as opportunities to embrace—rather than challenges against which to defend—and position ourselves accordingly? Reimagining the future of mental health requires our field to have the leadership to adapt to an ever-changing world.

Forge new partnerships. Stakeholders in such areas as technology, law, philanthropy, public health, and business are increasingly engaging with mental health issues. As a hub science, psychology has unique opportunities to forge partnerships addressing the social determinants of mental health and to create new policy initiatives, interventions, and programs. We must position psychology as a resource, engage a broad cross-section of individuals, and use these important partnerships to enhance our efforts.

The state of our nation's mental health begs for dramatic change in our approach. Now is the time for bold action to move us forward. ■

MALTE MUELLER/GETTY IMAGES

● **Arthur C. Evans Jr., PhD,** is the chief executive officer of APA. Follow him on Twitter: @ArthurCEvans.

COMPILED BY CHRIS PALMER

In Brief

THE LATEST PEER-REVIEWED STUDIES WITHIN PSYCHOLOGY AND RELATED FIELDS

The overall number of dementia cases is expected to triple globally by 2050 with population growth.

KATE_SEPT2004/GETTY IMAGES

DEMENTIA RATE DECREASING, POPULATION INCREASING

While the rate of dementia is decreasing, the overall number of individuals with dementia is expected to triple globally by 2050 with population growth, according to research in *The Lancet Public Health*. Researchers used information on projected trends in three important dementia risk factors (high body mass index, high fasting plasma glucose, smoking) with education as an additional predictor, as well as projected trends in education, population growth, and population aging to estimate changes in dementia prevalence between 2019 and 2050. They estimated that the number of people with dementia would increase from 57.4 million cases globally in 2019 to 152.8 million cases in 2050. In 2019, the female-to-male ratio of dementia cases was 1.69, and the researchers predicted that will remain roughly the same in 2050. Projected increases varied across regions, with the smallest increases in high-income Asia Pacific (53%) and western Europe (74%) regions and the largest increases in North Africa and the Middle East (367%) and eastern sub-Saharan Africa (357%).

DOI: 10.1016/S2468-2667(21)00249-8

BOREDOM AND SADISTIC TENDENCIES

According to research in the *Journal of Personality and Social Psychology*, boredom may motivate people to harm others to experience pleasure. In the first of nine studies with participants from Canada, Germany, Denmark, and the United States, researchers surveying 1,780 participants found that people who experienced chronic boredom in their daily lives showed more sadistic tendencies than those who were less bored. Five additional studies with 1,740 participants indicated that the link between boredom and sadism held across different societal contexts, including online trolling, sadism in the military, and sadistic behavior among parents. Across three final studies with 4,097 participants, the researchers manipulated boredom experimentally and found that inducing boredom increased sadistic behavior. However, when behavioral alternatives were available, boredom only motivated sadistic behavior among participants highly predisposed to sadism. Conversely, when there was no alternative, boredom increased sadistic behavior even among those with low sadistic tendencies.

DOI: 10.1037/pspi0000335

NOSTALGIA, NO THANKS

Older people are more likely to experience nostalgia (and have it trigger negative feelings) than younger people, suggests research in *Emotion*. Researchers asked 108 participants in the United States ranging in age from 18 to 78 to take a daily survey related to nostalgia for 2 weeks. Participants indicated whether they experienced nostalgia during the day and how positive or negative it made them feel. Younger participants experienced nostalgia 60% less often than middle-age participants, while older participants reported nostalgia 3 times more often than middle-age participants. Gender did not influence the frequency of nostalgia. As to affect, 72% of participants reported better mood in response to nostalgia, while 51% reported negative feelings. Older participants were more likely to experience negative mood resulting from nostalgia than both younger and middle-age participants.

DOI: 10.1037/emo0000980

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New mothers who feel low in social status have worse health outcomes 1 year after giving birth than new mothers who see themselves as higher in social status.

NEW MOMS WITH MORE SOCIAL STATUS THRIVE

According to research in *Health Psychology*, new mothers who feel low in social status have worse health outcomes 1 year after giving birth than new mothers who see themselves as higher in social status. Researchers surveyed 1,168 new mothers in the United States 6 months after the birth of their children about their subjective social status, household income, and years of education. About 6 months later, the researchers assessed general health using 10 biomarkers, such as blood pressure and cholesterol levels. They found that the biomarkers of participants with higher subjective social status reflected less "wear and tear" related to stress. Perceived social status was a stronger indicator of health outcomes than income. However, the association between social status and health varied depending on participants' income and education; it was strongest for wealthier participants and those whose completed education level was high school or above.

DOI: 10.1037/hea0001148

LONELINESS BOOM

Loneliness has steadily increased over the past 4 decades, suggests research in *Psychological*

Bulletin. Researchers performed a meta-analysis of 437 independent assessments of loneliness in 345 studies involving 124,855 participants between the ages of 18 and 29 from around the world between 1976 and 2019. All studies used the same measure of loneliness: the UCLA Loneliness Scale. The researchers found a linear rise in loneliness over those 43 years. Changes in loneliness over time were similar among Asian, European, and American participants. In addition, the researchers found no differences in loneliness between student and nonstudent participants and no acceleration of loneliness related to the market saturation of smartphones circa 2012. However, they found that year-to-year increases in loneliness were notably greater after the year 2000, possibly due to widespread access to the internet.

DOI: 10.1037/bul0000332

NAGGING NUDGES NEEDED

Among various "nudges" encouraging people to receive a flu vaccine, the most effective was a set of texts sent on multiple days reminding patients that a flu shot was waiting for them, according to research in the *Proceedings of the National Academy of Sciences*. Researchers randomly delivered one of 22 different types of text messages (or no message) to 689,693 Walmart pharmacy patients in the United States. The top-performing intervention, yielding a 9.9% increase in vaccinations over the control, included two texts sent 3 days apart stating that a vaccine was waiting for the patient. The worst-performing nudges asked participants to think about catching the flu at a specific location. Overall, the researchers found that all text reminders boosted vaccination rates compared with the control, and repeated reminders outperformed one-time nudges.

DOI: 10.1073/pnas.2115126119

CATARACT SURGERY ASSOCIATED WITH LOWER DEMENTIA RISK

A study in *JAMA Internal Medicine* indicates that undergoing cataract surgery may be associated with a lower risk of developing dementia among people age 65 and older. Researchers tracked 3,038 participants in the United States who had been diagnosed with cataract or glaucoma but who did not have dementia nor a previous cataract surgery when the study began. They also evaluated participants' cognitive abilities every 2 years over an average of 7.8 years. About 45% of participants underwent cataract surgery during the study. These participants were about 30% less likely to develop any form of dementia for at least 10 years post-surgery. No association was found between dementia and glaucoma surgery, which, unlike cataract surgery, does not improve vision.

DOI: 10.1001/jamainternmed.2021.6990

ECO-ANXIETY

A study in *The Lancet Planetary Health* indicates that climate change is causing distress, anger, and other negative emotions in young people worldwide. Researchers surveyed 10,000 people ages 16 to 25 across 10

Undergoing cataract surgery may be associated with a lower risk of developing dementia among people age 65 and older.

FG TRADE/GETTY IMAGES

countries (Australia, Brazil, France, Finland, India, Nigeria, the Philippines, Portugal, the United Kingdom, and the United States) about their feelings regarding climate change and their government's response to it. They found that more than 50% reported each of the following emotions: sad, anxious, angry, powerless, helpless, and guilty. In addition, 75% reported that they find the future frightening, 45% had concerns about the climate negatively impacting their daily lives, and 40% said climate concerns make them hesitant to have children. More than half said governments have betrayed current and future generations, while 64% said their government was failing to avert a climate disaster. Climate distress was evident in countries that are already experiencing direct physical impacts of climate change as well as in countries that are less directly impacted.

DOI: 10.1016/S2542-5196(21)00278-3

CREATIVE SWEET SPOT IN SLEEP/WAKE ZONE

The brain activity common to the twilight zone between sleep and wakefulness sparks creativity, according to research in *Science Advances*. Researchers outfitted 103 participants in France with polysomnography devices to assess the participants' state of wakefulness. They then exposed the participants to math problems without revealing that a "hidden" rule allowed a near-instant solution. Participants completed two blocks of trials, rested for 20 minutes, then completed nine more blocks. During the break period, 24 participants spent at least 15 seconds in hypnagogia (or non-REM sleep stage 1, a sleep stage characterized by vivid dreams). Of these 24, 83% discovered the hidden rule after the break. Only 30% of participants who remained awake discovered the rule. The effect disappeared if subjects reached deeper sleep during the rest period.

DOI: 10.1126/sciadv.abj5866

More than 50% of young people surveyed reported feeling sad, anxious, angry, powerless, helpless, and guilty regarding climate change and their government's response to it.

YURI_ARCURS/GETTY IMAGES

DEPRESSION STIGMA PLUMMETS

According to research in *JAMA Network Open*, stigma toward people with depression has dropped significantly, though stigma toward people with other mental illnesses has remained stagnant or, in some cases, increased. Researchers analyzed data on attitudes toward mental illness from a total of 4,129 adults living in non-institutionalized settings in the United States taken at three points: 1996, 2006, and 2018. They found that from 1996 to 2006, there was an increase in the belief that genetics or disrupted brain function, rather than moral failings, cause mental health problems. During that time, those beliefs were not accompanied by a decreased stigma toward those with mental illness. However, the 2018 survey data revealed a significant drop in social rejection of those with major depression. Other disorders did not see a similar

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Prison populations spiked as psychiatric services shuttered in England over a 60-year period.

decrease in stigma in the 2018 survey. In fact, the percentage of people who believed people with schizophrenia are dangerous and that alcohol dependence results from a lack of morality increased over time.

DOI: 10.1001/jamanetworkopen.2021.40202

OVERPRESCRIBED ADOLESCENTS AND YOUNG ADULTS

A study in *JAMA Pediatrics* indicates that while clinicians are prescribing fewer benzodiazepines to adolescents and young adults, 66% to 75% of patients in this age group who received a prescription did not have a diagnosis corresponding with approved indications for the medications. Researchers analyzed health care claims in the United States between 2008 and 2019 for 4 million adolescents, ages 13 to 18, and 6 million young adults, ages 19 to 25. They found that benzodiazepines were prescribed at least once to 1.8% of adolescents and 4% of young adults, with diazepam being the most common choice for adolescents and alprazolam for young adults. Clinicians simultaneously prescribed opioids and benzodiazepines to 26% of adolescents and 24% of young adults. Benzodiazepine prescriptions peaked in 2015 for adolescents and in 2013 for young adults and have since decreased steadily. Only 25% and 34% of claims for adolescents and young adults, respectively, involved an approved indication for benzodiazepine use.

DOI: 10.1001/jamapediatrics.2021.5122

PSYCH BED TO PRISON

In an affirmation of the Penrose hypothesis, a study in *The British Journal of Psychiatry* indicates that prison populations spiked as psychiatric services shuttered in England over a 60-year period. Researchers used a time lag method to analyze associations between the number of psychiatric beds allotted for mentally ill and intellectually disabled individuals in England and the country's prison population. They found that from 1960 to 2019, the number of psychiatric beds decreased by 93%, from 201,275 to 19,389. Over that time, the prison population increased by 208%, from 26,048 to 80,203. Cuts in psychiatric beds were associated with increased prison population at a roughly 10-year lag: Across the study period, for every 100 psychiatric beds that were closed, there were 36 more prisoners (3 female and 33 male) 10 years later.

DOI: 10.1192/bjp.2021.138

DEPRESSION'S CAUSAL ROLE IN ALZHEIMER'S

Depression may have a causal role in Alzheimer's disease (AD), but the reverse may not be true, suggests research in *Biological Psychiatry*. Researchers performed a genome-wide association study (GWAS), a technique that scans the entire genome for areas of commonality associated with specific conditions. They looked at a 2019 analysis of depression among 807,553 individuals and a 2019 study of AD among 455,258 individuals, all of European ancestry. The GWAS identified 28 brain proteins and 75 transcripts—the genetic messages that encode proteins—associated with depression. Among those, seven proteins and 46 transcripts were

Sleep-deprived adolescents crave more sweets and other carbohydrates, especially late at night.

FCAFOTODIGITAL/GETTY IMAGES

also associated with AD. The data suggest the two diseases share a genetic origin, which could spur an increased risk for AD associated with depression. Assessing the effect of 115 single-nucleotide polymorphisms (SNPs) from the depression GWAS uncovered evidence that the SNPs cause depression, which in turn causes AD. The researchers conducted the same analysis on 61 SNPs from the AD GWAS but found no evidence that AD causes depression.

DOI: 10.1016/j.biopsych.2021.11.025

LOSE SLEEP, CRAVE SWEETS

Sleep-deprived adolescents crave more sweets and other carbohydrates, especially late at night, suggests research in *Sleep*. Researchers assigned 93 adolescents in the United States to 5 nights of good sleep (9.5 hours) and 5 nights of poor sleep (6.5 hours). They also asked the participants to record what, when, and how much food they ate during each 5-day stretch. When sleep-deprived, the adolescents consumed more carbohydrates, added sugars, and sweet drinks, and they ate fewer fruits and vegetables. Differences in consumption of calories, fats, and carbohydrates peaked after 9 p.m.

DOI: 10.1093/sleep/zsab269

MORE DISGUSTED DURING COVID

Disgust sensitivity—the intensity with which people are repulsed by ideas or situations considered gross or unpleasant—has increased during the COVID-19 pandemic, especially among those most afraid of contracting the coronavirus, suggests research in *Personality and Individual Differences*. In nine data-collection waves between December 2018 and June 2020, researchers assessed the disgust sensitivity of 3,300 adults in the United States. During the final two waves in spring 2020, participants also indicated their pandemic-related opinions and behaviors. The average pre-pandemic disgust sensitivity, which included responses to disease-related scenarios and non-disease scenarios, was 2.82 out of 4, a figure that increased to 3.26 during the pandemic. Similar within-subject increases in disgust sensitivity were observed in one set of respondents surveyed in November 2019 and May 2020. Finally, participants in the final two waves who were most concerned about contracting COVID-19 exhibited the greatest increases in disgust sensitivity.

DOI: 10.1016/j.paid.2021.111348

BIRTH ORDER AND HOMOSEXUALITY

The first population-level study of birth order and homosexuality, published in *The Journal of Sex Research*, indicates that having a greater number of older brothers increases the probability of both men and women entering a same-sex marriage. Researchers analyzed a sample of 9,073,496 people in the Netherlands born between 1940 and 1990. They compared the sibling relationship characteristics of 26,542 men and 33,534 women who registered for a same-sex marriage with those who did not. They found evidence of a fraternal birth-order effect on homosexuality: Both men and women with one older brother were about 12% more likely to enter a same-sex union than men and women with one older sister and 21% more likely than men and women with just one younger sibling. Birth order and total sibling number mattered, too. The youngest male siblings were more likely to enter a same-sex marriage than the oldest male siblings, and the differences grew as the total number of siblings increased. Women were also more likely to enter a same-sex marriage if they had older brothers.

DOI: 10.1080/00224499.2021.1974330

● **For direct links** to the research cited in this section, visit our online edition at www.apa.org/monitor.

AMERICAN PSYCHOLOGICAL FOUNDATION

Thanks to support received for the EnVISION Racial Equity Campaign, the American Psychological Foundation was able to support the following Visionary Grants:

DR. ABIGAIL M. FOLBERG
The University of Nebraska at Omaha
Examining How Prejudice Confrontation Diffuses Through Social Networks

DR. ALEXANDER P. BURGOYNE
Georgia Institute of Technology
Reducing Adverse Impact and Improving Personnel Selection Using Tests of Attention Control

MS. SARAH GILLESPIE
University of Minnesota
Ending Racism and Promoting Student Thriving in Diverse Schools: Exploring the Causal Effect of Ethnic Studies Education through a Natural Experiment

DR. MEGAN MILLER
Indiana University
Investigating How Institutional and Provider Racism Contribute to Pain Treatment Disparities in Adults with Sickle Cell Disease

DR. TERESA P. NGUYEN
Sonoma State University
Socioeconomic Status, Racial Discrimination, and the Well-being of Low-Income, Latinx Families

DR. KATE M. TURETSKY
Barnard College, Columbia University
Understanding and Ending Racial Bias in Early Education Assessment

DR. FANITA A. TYRELL
The University of Maryland at College Park
Ethical Representation in Biosocial Research: Laying the Groundwork for the Representation And Research Ethics (RARE) Registry at UMD

MR. ROBERT J. VARGAS
Carnegie Mellon University
Using fMRI-measured Attitudes and Actions to Predict Biased Decisions to Punish among White and Chinese Americans

The Visionary Grants are APF's flagship program, providing funding to psychology graduate students and early career psychologists to seed innovation through supporting research, education, and intervention projects and programs that use psychology to solve social problems. In 2020, in recognition of the urgency of the matter, APF added special Visionary grants dedicated to racial equity. This campaign is called **EnVISION Racial Equity** and all funds raised are dedicated to new racial equity Visionary grants. Your support is critical to fund these programs. To find out more, go to **www.apa.org/apf/news/envision** or make your gift at **www.apa.org/apf/giving**.
If you have additional questions, contact Miriam Isserow at **misserow@apa.org.**

PSYCHOLOGICAL WARFARE IN THE 21ST CENTURY

Social media disinformation and manipulation are causing confusion, fueling hostilities, and amplifying the atrocities in Ukraine and around the world

BY ZARA ABRAMS

In the 21st century, war is not just physical—it's also psychological, and much of it takes place online.

Political entities in at least 70 countries have engaged in coordinated online disinformation campaigns in recent years, with Russia alone launching more than 30 attacks on elections around the world since 2016 (*2019 Global Inventory of Organised Social Media Manipulation*, University of Oxford; *Hacking Democracies*, Australian Strategic Policy Institute, 2019).

"We've seen the very real effects of information operations on everything from the rise of extremist groups like ISIS to far-right groups in America that culminated in January 6," said Peter W. Singer, PhD, a professor of practice at the School of Politics and Global Studies at Arizona State University. "It's behind the so-called 'infodemic' that has made the COVID-19 pandemic far more deadly than it should have been," he said.

Online disinformation has also been linked to mass killings around the world, from Myanmar to India.

But propagandists aren't just pushing against an open door. Psychologists—along with experts in political science, computer science, national security, and more—are fighting back. This starts with an understanding of how misinformation (and disinformation, a subset of misinformation intended to mislead) functions, as well as what works to correct it. That science is now informing strategic resistance in Russia, Ukraine, and beyond.

"The Ukrainians are fighting a 21st-century war, which is half on the internet," said Stephan Lewandowsky, PhD, a professor of psychology at the University of Bristol who studies misinformation at the societal level. "That new approach has worked extremely well because it has preempted Russian attempts to rewrite history."

GETTING TO THE TRUTH

Disinformation in war is nothing new—in fact, it's a key part of the playbook. Leaders commonly inflate or fabricate information about everything from military might to supposed atrocities to confuse opponents or boost morale at home. Even Ukraine has appeared to push some wartime narratives that may be false.

But with the rise of social media, propaganda can now be deployed on a much larger scale—and it has been used to garner support for genocide and other human rights violations, including those against the Uyghur population in China, the Rohingya in Myanmar, and Muslim populations in India. To describe the growing role of online media in political conflicts, Singer helped coin the term "LikeWar."

"If you think of cyberwar as the hacking of networks, LikeWar is its evil twin: the hacking of people on those networks, through our likes, shares, and sometimes lies," said Singer, who is also a strategist and senior fellow at the nonpartisan public policy institute New America.

For years, Russia has been waging—and winning—a LikeWar against much of the world. The Kremlin has deployed tried-and-true psychological manipulation strategies via social and online media, including disparaging outgroups and rapid-fire lying, according to research by Jon Roozenbeek, PhD, a postdoctoral fellow in psychology at the University of Cambridge who studies mis- and disinformation and media discourse in Ukraine.

Roozenbeek documented how the Kremlin stoked outgroup animosity toward Ukrainians and the Ukrainian

FURTHER READING

LikeWar: The weaponization of social media
Singer, P. W., & Brooking, E. T., 2018

Controlling the spread of misinformation
APA, 2021

Putin, Zelenskyy, and Biden all have unique leadership styles
Hunter, S., & Scott Ligon, G., The Conversation, 2022

Misinformation, disinformation, and violent conflict: From Iraq and the "War on Terror" to future threats to peace
Lewandowsky, S., et al., *American Psychologist*, 2013

SIPA/PRE/AP IMAGES

Russian Minister of Education Sergey Kravtsov held a press conference to denounce Ukrainian school textbooks as instruments of propaganda. The books mention Ukraine's declaration of independence from Russia.

government during the takeover of the Donetsk and Luhansk regions in eastern Ukraine, a tactic linked with high social media engagement (*Media and Identity in Wartime Donbas*, 2014-2017, University of Cambridge, 2019; Rathje, S., et al., *PNAS,* Vol. 118, No. 26, 2021).

Another ploy Russian President Vladimir Putin has used to great success is conspiracy "gish gallop," or rapid-fire lying, said Roozenbeek, for instance around the Malaysian Airlines disaster of 2014. The Kremlin's constant stream of lies—that it was a Ukrainian attack, that all the passengers were dead before takeoff, that the pilot intentionally crashed the plane—was used to sow confusion and disillusionment (Paul, C., & Matthews, M., *RAND Corporation*, 2016).

"It's a firehose of falsehoods that don't even hang together," Lewandowsky said. "They're just saying anything, literally anything, to reinforce people's belief that you can never get to the truth."

Putin also uses specific leadership and aggressive tactics to help justify violence, said Tin Nguyen, a research associate at the National Counterterrorism, Innovation, Technology, and Education Center who is completing his doctoral degree in industrial-organizational psychology at Penn State University (Lovelace, J. B., et al., *The Leadership Quarterly*, Vol. 30, No. 1, 2019; James, L. R., et al., *Organizational Research Methods,* Vol. 8, No. 1, 2005). For example, Putin's strategies include painting Ukraine and Western nations as evil and immoral and framing messages in terms of power dynamics. If Russia is merely a victim that other world powers are exploiting, the country has a justification for revenge.

Such claims may be easily dismissed by Westerners, but many Russian citizens lack access to reliable counter-information due to the restrictions on independent and social media in the country, Nguyen said. They've also faced repeated exposure to these falsehoods for years, which psychologists have shown can increase the persuasiveness of disinformation (Pennycook, G., et al., *Journal of Experimental Psychology: General*, Vol. 147, No. 12, 2018).

"It's not just what's being communicated now that matters—it's what's been communicated for the last decade or so that's really influencing the way that [the Russian] people are thinking about this war," Nguyen said.

PREEMPTING PROPOGANDA

By design, misinformation and disinformation are more infectious and incendiary than factual information, which makes them particularly useful in wartime.

Research has shown that after undergoing fact-checking, information deemed false spreads faster on social media than information deemed true—a trend fueled by people, not bots (Vosoughi, S., et al., *Science*, Vol. 359, No. 6380, 2018). Misinformation tends to draw on moral-emotional language, mak-

Ukrainian Andriy Stasyshyn cohosts a radio show that counters Russian propaganda.

ing it more likely to be shared, especially within ideological groups (Ecker, U. K. H., et al., *Nature Reviews Psychology*, Vol. 1, 2022; Brady, W. J., et al., *PNAS*, Vol. 114, No. 28, 2017).

Once it takes hold, misinformation is tough to correct. Psychologists have shown that pre-bunking, or preemptively warning people about incorrect or misleading information, is more effective than debunking falsehoods after the fact (Lewandowsky, S., et al., *The Debunking Handbook 2020*). Personal and emotional appeals, rather than merely providing a fact-check, can also be helpful.

Though Russia has long outmaneuvered its opponents in the information space, foreign leaders are starting to push back. Ukrainian officials systematically pre-bunked Russian attempts to spread disinformation in the lead-up to February's invasion by documenting Russia's buildup of military forces with satellite photos. They also helped reveal that Putin's so-called "emergency meetings" were actually prerecorded when one official's wristwatch did not match the Kremlin's story. The United States also released intelligence about Russian movements ahead of time to prevent Putin from controlling the narrative about the war.

Preempting Russian propaganda affords a strategic advantage as well as a psychological one, Singer said—it puts the Kremlin on its back foot, forcing it to react instead of making the first move and controlling the storyline.

Social media platforms are also limiting the flow of Russian disinformation more aggressively than they have in the past, Nguyen said. Twitter is adding labels to Russian state-sponsored media, while Meta is demoting such posts. Reddit is making it harder to find the subreddit r/Russia, and TikTok is limiting livestreams and uploads from Russia.

At the individual level, the same strategies that work for avoiding misinformation on other topics can help protect against psychological warfare, too. Singer and his colleagues call this "cyber citizenship"—a combination of digital literacy, responsible behavior, and awareness of the threat of online manipulation.

"Whether it's Russian disinformation, an anti-vaxxer conspiracy theory, or just someone trying to tell your kids that aliens built the pyramids, having all three of those skills is an incredibly effective way to resist manipulation," he said. ■

BENEDICTINE VAN DER MAAR/HANS LUCAS/REDUX

ONLINE SKILLS

CYBER CITIZENSHIP

Cyber citizenship describes the skills needed to protect against misinformation and psychological manipulation online. These include:

- **Digital literacy:** Understand how the online world works, how to recognize fact versus opinion, and how algorithms drive information your way.
- **Civics and citizenship:** Behave responsibly toward others in your online networks.
- **Cybersecurity:** Recognize and rebuff techniques used by both hackers and online manipulators.

Learn more about New America's Cyber Citizenship Initiative at www.newamerica.org/education-policy/cyber-citizenship-initiative.

"Whether it's Russian disinformation, an anti-vaxxer conspiracy theory, or just someone trying to tell your kids that aliens built the pyramids, having all three [cyber citizenship] skills is an incredibly effective way to resist manipulation."

PETER W. SINGER, PHD, ARIZONA STATE UNIVERSITY

PERSONAL CONNECTIONS

PSYCHOLOGISTS FIGHT RUSSIAN DISINFORMATION

For years, the Kremlin has churned out propaganda about Ukrainians, depicting them as neo-Nazis conspiring with Western powers to take Russia down. Little data exists on public opinion in Russia today, but there's plenty of evidence that fear and manipulation still control much of how information flows in the country.

"In closed societies like Russia, it's extremely difficult to know what people think," said Stephan Lewandowsky, PhD, a professor of psychology at the University of Bristol.

Psychologists are part of several efforts to assist Russians in accessing factual information about the war in Ukraine. They're using research findings to shape outreach efforts and guide conversations with Russian citizens.

The Call Russia Logo

The Mail2RU initiative, for example, has sent more than 60 million emails to Russians with credible information about the war. But social psychologist Julia Minson, PhD, an associate professor of public policy at the Harvard Kennedy School, noticed that the campaign's initial messages, composed by the Norwegian technology expert who launched the effort, weren't strategically worded to reach people with a different point of view.

Minson quickly joined forces with the Mail2RU team and is now applying her research on "conversational receptiveness" to improve the content of the messages. The adjustments are meant to reduce pushback and open up productive dialogue with the Russian email recipients (*Organizational Behavior and Human Decision Processes*, Vol. 160, 2020).

For example, Minson's research shows the power of hedging claims in the face of anticipated resistance. Instead of saying "Putin is lying to the Russian people," she suggested the following: "Sometimes, the Russian government has been known to lie to the Russian people. What do you think is going on? I'd like to hear your perspective."

In line with her findings, the rewritten emails now emphasize points of agreement ("I'm sure that both of us are concerned for the safety of our planet") and acknowledge what the recipients might be going through ("I understand that things are hard right now in Russia under the sanctions"). They're also much shorter and easier to skim, drawing on research by organizational psychologist Todd Rogers, PhD, also of the Harvard Kennedy School, on what he calls "corresponding with busy people."

A similar initiative, Call Russia, uses phone calls instead of emails to open up information channels. Cofounder Paulius Senuta, who works in advertising, enlisted a team of four Lithuanian psychologists to build scripts that emphasize emotions and personal connections rather than merely correcting facts.

"We can't change minds by arguing who's right or wrong," Senuta said. "The way we're trying to make a difference is by asking questions and provoking basic human sympathy for the people who are dying."

At the University of Cambridge, psychologists Jon Roozenbeek, PhD, and Sander van der Linden, PhD, are working with the United Kingdom's Foreign, Commonwealth and Development Office to translate tools they've developed to inoculate individuals against online disinformation into Russian and Ukrainian.

"The individual examples are different, but the underlying tropes are the same," Roozenbeek said. "We're exploring how these tools can be used to counteract strategies commonly used in Russian disinformation."

CHESSMANZ, ISTOCK/GETTY; CALL RUSSIA

THE ANATOMY OF A MISINFORMATION ATTACK

Scientists who discuss hot-button topics on social media may find themselves in the middle of a firestorm. How can they stay safe while communicating the facts, and what can institutions do to support them?

BY ZARA ABRAMS

In January, psychologist Jay Van Bavel, PhD, was the target of a coordinated misinformation attack. He received thousands of angry tweets, messages, and emails from conspiracy theorists who believed he was part of a massive cover-up of the so-called truth about COVID-19.

Van Bavel, an associate professor of psychology and neural sciences at New York University (NYU) who studies group identity, had merely helped fact-check a false claim—that millions of Americans have been "hypnotized" into accepting mainstream messages about COVID-19, including the importance of vaccination, creating "mass formation psychosis." The psychological phenomenon was described by Robert Malone, MD, on *The Joe Rogan Experience* podcast on Dec. 31, 2021.

The only problem: mass formation psychosis is a bogus theory that lacks evidence—or even recognition by scientists. After Van Bavel joined a group of psychologists who debunked the theory via the Associated Press, Malone's followers began harassing him on Twitter. Soon, another conspiracy theorist, Jack Posobiec—and many of his 1.5 million followers—followed suit.

A 2017 study estimated that more than 45,000 scientists are active on Twitter, with many more weighing in since the pandemic began (Ke, Q., et al., *PLOS ONE*, Vol. 12, No. 4, 2017). Presenting science through social platforms and mass media offers an opportunity to engage the public with the scientific process, but scholars who do so may also face trolling and harassment.

"For researchers, we're now having to walk a very fine line in terms of how much we can communicate independently," said Aleks Krotoski, PhD, a New York–based podcaster and social psychologist who studies how information spreads online. "Communicating our science is still really, really important, but it carries with it a perilous situation in which you could then become the center of a firestorm."

In addition to a flood of insulting tweets and memes attacking his character and scientific credibility, Van Bavel received hateful emails and messages on other platforms, including Facebook, Instagram, and LinkedIn. Some trolls even tracked down and contacted his partner and employer, eventually prompting him to make his Twitter account private and remove his personal information from other sites.

Van Bavel and other scientists shared their thoughts about the nature of online harassment, how scientists can stay safe while communicating the facts, and what institutions can do to support them.

WHEN LOGIC DOESN'T MATTER

Misinformation and extreme ideas tend to spread faster online, and conversations can quickly become more hostile than in face-to-face interactions (Vosoughi, S., et al., *Science*, Vol. 359, No. 6380, 2018; Bor, A., & Petersen, M. B., *American Political Science Review*, Vol. 116, No. 1, 2022). In a *Nature* survey, nearly 60% of scientists who had commented publicly about COVID-19 online or in the media said they faced attacks to their credibility, and 15% said they received death threats (Nogrady, B., *Nature*, Vol. 598, 2021). And when trolls team up for a coordinated barrage, "it is truly overwhelming," Van Bavel said.

At the heart of the problem is our hyper-moralized political

"When a scientist like Jay speaks out, he's viewed not just as wrong but as sacrilegious and even evil."

PETER DITTO, PHD
UNIVERSITY OF CALIFORNIA, IRVINE

MATT CARR

Dr. Jay Van Bavel received thousands of angry tweets, messages, and emails after he helped fact-check a false claim about COVID-19.

culture, said psychologist Peter Ditto, PhD, of the University of California, Irvine. He, Van Bavel, and an interdisciplinary group of other scholars are using the term "political sectarianism" to describe what resembles a religious battle between two warring sects, with each side convinced they are right (*Science*, Vol. 370, No. 6516, 2020).

"When a scientist like Jay speaks out, he's viewed not just as wrong but as sacrilegious and even evil," Ditto said.

While the attacks surrounding vaccination, climate change, and other scientific findings may seem like a debate about what's factually correct, the conversation is actually more of a moral one.

"The trolls aren't saying your sample size isn't big enough; they're going after your allegiances," Ditto said.

That can include harassing a scientist simply because of their ties to academia or because they conduct or comment on research relating to COVID-19. Online trolling also disproportionately affects members of nondominant identity groups, such as women, transgender people, and people of color (Vogels, E. A., "The State of Online Harassment," Pew Research Center, 2021).

Online attacks often escalate when an influencer—someone like Joe Rogan or Jack Posobiec—goads their supporters to attack a perceived enemy. The psychological principle of "engaged followership" helps explain how people justify attacking others in service of a revered leader or ideology (Haslam, S. A., & Reicher, S. D., *Annual Review of Law and Social Science*, Vol. 13, 2017).

"In many cases, online trolls probably feel that what they're doing is righteous," said psychologist Gordon Pennycook, PhD, an assistant professor at the University of Regina in Saskatchewan, Canada, who was also harassed on Twitter after backing Van Bavel. "But the problem is that their reality is so miscalibrated that their behavior becomes irrational."

The collective behavior of online mobs also resembles the dynamics within cults. Cults provide a powerful component of social belonging, which can make extreme ideas feel more palatable, according to the classic theories of social psychologist Leon Festinger, PhD.

"If you have other people helping you rationalize your beliefs and explain away contradictions, it's easier to cling to these extreme ideas," said Van Bavel.

Conspiracy theories appear to spread even faster on social media than they do in person, possibly because our cognitive

biases function differently online than off, according to research by Mason Youngblood, PhD, a psychologist and researcher at the Max Planck Institute for the Science of Human History in Jena, Germany (*Humanities and Social Sciences Communications*, Vol. 7, 2020). For instance, people may be more sensitive to social cues indicating ingroup or outgroup status during online interactions.

Like extreme ideas, extreme behaviors can also spread and escalate quickly online. "Pluralistic ignorance" describes a psychological phenomenon in which people make incorrect assumptions about the beliefs of others and adjust their behavior to align with that perceived group norm. For example, a listener may believe that fellow *Joe Rogan Experience* fans hold more extreme views and participate in an online attack because they (incorrectly) believe that their peers are enjoying it.

Krotoski and others have shown that this explains some aspects of online trolling, because users notice, amplify, and act on very subtle cues about group status (Lee, S. M., et al., *Journal of Computer Information Systems*, Vol. 48, No. 3, 2016). In the online space, it's easier for people to feel united against a common enemy—and to harass that person or group simply because they see others doing so.

"Pluralistic ignorance has an extraordinary amplifying effect in the virtual environment," Krotoski said. "Without some sort of reality check that we would often experience offline, we will very happily continue to escalate."

"Without some sort of reality check that we would often experience offline, we will very happily continue to escalate."

ALEKS KROTOSKI, PHD, SOCIAL PSYCHOLOGIST

Conspiracy theories have spread rapidly online during the pandemic, such as microchip trackers being injected into humans via vaccines, which has also made it a very difficult time to share accurate information as a scientist.

STAYING SAFE FROM TROLLS

Experts stress that any scientist who discusses science on social media or in the popular press risks having their ideas challenged, their credibility questioned, and even their personal safety threatened.

"By participating in the conversation, it's almost like you sign an unspoken contract, and you could potentially come under fire," said Krotoski, who has spent 20 years broadcasting on gaming, psychological research, and other topics and has faced repeated online harassment.

Those who want to share their research on social media can take some steps to protect themselves, starting by creating a plan for how to respond if an attack does occur.

Familiarize yourself with privacy tools native to platforms, including how to mute, block, and report other users. Van Bavel also recommends reviewing any "lists" on Twitter that you've been added to, because trolls often curate lists of academics to facilitate harassment. Navigate to the "Lists" tab on Twitter and access "Lists you're on" by clicking the three dots at the top.

External tools can help further protect against harassers. The Block Party app filters out unwanted posts and mentions from a Twitter feed, and the Twitter Block Chain browser extension for Chrome allows users to block trolls and their followers en masse.

Decide ahead of time whether and how you will respond to critics. Some challengers may be interested in a reasoned debate—Pennycook said his replies to skeptics have, at times, led to interesting discussions. Other approaches include choosing not to respond to comments or private messages or having a colleague review your replies before sending.

Next, researchers should know how to recognize when an online mob is forming. One red flag is a sudden surge of comments and messages, especially if people are pushing conspiracy theories or accusing researchers of lying.

If you are targeted, you can wait until the storm passes or address it head-on. Van Bavel chose to temporarily make his Twitter account private and hunker down until the trolls moved on. In some cases, a scholar who feels their findings or comments have been misrepresented may elect to release a video or written statement explaining their position.

"Whatever you do, just don't feed the trolls" by retaliating at those who are attacking you, Krotoski said. When hundreds or thousands of people are attacking your character and credibility, responding to indi-

FRANKY DEMEYER, ISTOCK/GETTY

TAYFUN SALCI/ZUMA WIRE/ALAMY

Protesters in London fight against lockdowns, masks, and vaccines, citing "mass hypnosis," related to the theory Dr. Jay Van Bavel helped fact-check.

vidual critics in an aggressive or defensive way will usually make things worse.

Researchers who anticipate pushback against a public statement, for instance about vaccination or another hot-button issue, may want to solicit support from colleagues before going public, suggested Heidi Tworek, PhD, an associate professor of public policy and global affairs and history at the University of British Columbia who studies online harassment of health communicators. For example, arrange to have several other scientists publicly validate your comments as soon as they are posted or released.

When the moment comes, set your plan in action and prepare to weather the storm. Though the deluge can feel intense, it typically doesn't last very long, Pennycook said.

"Trolls are very reactionary and tend to move on quickly. It's a lot really fast, and then the next thing happens," he said.

Scientists in the public eye should also periodically audit their online footprint. For a small fee, DeleteMe delists personal information, such as addresses and phone numbers, from public databases. TweetDeleter and other services can periodically archive social media posts to cut down on fodder for trolls. Various guides also offer detailed instructions for removing personal information from websites frequently used by online attackers.

Other tips include making personal profiles—such as an Instagram account with family photos—private, applying for Twitter's blue verification badge to minimize the risk of impostor accounts, and working with your institution to remove your contact information from its public directory.

SOCIAL AND INSTITUTIONAL SUPPORT

While individuals can take steps to enhance their personal safety, experts emphasize that institutions, governments, funding agencies, scientific societies, and media platforms are ultimately responsible for creating safer online spaces.

"A lot of this is about the ecosystem of the online world, and that cannot be solved by individuals," Tworek said.

In particular, institutions that encourage researchers to engage

BE PREPARED

HOW TO HANDLE AN ONLINE SIEGE

Discussing science on social media or in the press may be more important than ever, but it also carries a risk of backlash. Prepare yourself by following these steps if you frequently address the public.

Watch for signs that an online mob is forming.

- Has there been a surge of comments and messages? Is your post or topic suddenly trending on Twitter?
- What is the tone of mentions, comments, and private messages? Are users asking questions about the science or are they endorsing conspiracy theories, attacking your credibility, or threating to harm you?
- Are messages starting to spill into other channels, such as phone calls, emails, or attempts to contact your family or employer?

Make a plan.

- Decide ahead of time how you want to handle the situation—you can either ignore attempts to contact you and temporarily shut down social media accounts or release a clarifying statement or video message.
- Use platform-native tools, including muting, blocking, and reporting harassers.
- If applicable, reach out to your institution's leadership or safety office for additional support. In some cases, you may also choose to alert local law enforcement.
- Try to keep things in perspective. Trolls are aggressive and attention-seeking by nature, but they only represent a small fraction of your audience—and they tend to move on quickly.

Remove public information to stay one step ahead of the trolls.

- Use a service such as DeleteMe or manually remove your information from online databases.
- Consider choosing enhanced privacy settings for social profiles where you make personal posts.
- If necessary, work with your institution to remove your contact information from the internet or to change your email address so it can't be easily guessed.

THE NOUN PROJECT

with public audiences should have systems in place to support those who face abuse when doing so, she said. For example, universities can form a safety office staffed with individuals trained to help academics block harassers on social media, report death threats to the police, or filter through hundreds of abusive emails and voicemails. A centralized office could also expedite the removal of contact information from university websites and connect anyone facing abuse with a counselor.

When conspiracy theorists emailed NYU's administrative leaders to accuse Van Bavel of unethical behavior and of feeding propaganda to the media, he received a personal message of solidarity from the NYU provost. But he acknowledges that scientists in more precarious employment situations—including academics without tenure or clinicians in private practice who rely on online reviews—may fear serious reputational damage from such an attack.

For that reason, he emphasized the importance of supporting colleagues who find themselves in this situation. Support from those who are less likely to be attacked based on their gender, race, or academic status can be especially powerful.

"If you see another researcher being harassed, please step in or recommend another expert who's comfortable doing so," Van Bavel said. "This experience has underscored to me how critical that social support really is." ■

FURTHER READING

Online harassment field manual
PEN America, 2022

Why you should dox yourself (sort of)
Vilk, V.
Slate, 2020

Twitter's science stars fight misinformation
Akst, J.
The Scientist, 2022

From flies to file storage: Policy issues in the life-cycle of explanatory journalism
Tworek, H., et al.
Pol Comm Tech Lab, 2021

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AMERICAN PSYCHOLOGICAL ASSOCIATION

PANDEMIC STRESS AND DECISION-MAKING

High stress levels during the pandemic are making even everyday choices difficult to navigate

BY ZARA ABRAMS

About half of U.S. adults say that the uncertainty of the pandemic has made planning for their future feel impossible, according to APA's 2021 Stress in America survey, while nearly a third say their stress levels are so high that they sometimes struggle with even basic decisions, such as what to wear or what to eat. On top of pandemic-related stress, the vast majority of U.S. adults are reporting new stress related to the war in Ukraine, including worries about inflation and global uncertainty.

This stress around decision-making—both big and small—has been particularly tough for young adults, parents, and people of color.

"People have the same number of decisions to make, or more, with fewer resources," compared with before the pandemic, said Effua Sosoo, PhD, a clinical psychology postdoctoral fellow at the Durham Veterans Affairs Health Care System in North Carolina who studies the effects of race-related stress on mood and physiological responses.

Diminished resources can come in the form of financial hardship: Survey respondents listed housing costs and the economy as two of their biggest stressors. For others, personal safety and discrimination were primary concerns. Many faced a seemingly endless stream of decisions about whether to gather with others—an activity known to boost mental well-being yet potentially harmful to physical health because of the risk of COVID-19 exposure. Meanwhile, nearly everyone has faced upended routines, shifting public health guidance, and an ongoing need for risk assessment, leaving many U.S. adults feeling overwhelmed when faced with making choices.

"Stress depletes some of the psychological resources, such as willpower, that we use for decision-making," said social psychologist Roy F. Baumeister, PhD, of the University of Queensland in Australia. "When people have less energy to put towards decision-making, they start making decisions in different ways."

Psychological research points to cognitive and emotional roots of the challenges people are facing, as well as some possible solutions.

HOW STRESS ALTERS DECISION-MAKING

Decision-making, willpower, and self-control draw on a finite pool of mental resources, which can be temporarily reduced because of stress or overuse, according to the psychological concept of ego depletion.

When faced with a decision, people who are stressed are more likely to postpone choices or stick with the status quo, less likely to plan ahead, and more likely to be distracted by irrelevant information. They're also more likely to use lower-effort styles of decision-making (Vonasch, A. J., et al., *Motivation Science*, Vol. 3, No. 4, 2017; Yu, R., *Neurobiology of Stress*, Vol. 3, 2016).

"In their natural state, people make compromises very effectively," Baumeister said. "But when resources are low, they stop compromising."

Compromise involves weighing the costs and benefits of various options and finding a sweet spot—a task that is mentally taxing. In the lab, when people in an ego-depleted state are asked to choose from a series of items that vary in price and quality, they are more likely to pick the lowest-cost or highest-quality option rather than searching for a nexus of best value. In the real world, ego depletion may predict less thoughtful choices around spending, parenting, and more (Baumeister, R. F., & Vohs, K. D., *Advances in Experimental Social Psychology*, Vol. 54, 2016).

Adults, particularly millen-

SIPHOTOGRAPHY/GETTY IMAGES

nials and parents with children under 18, said even minor daily decisions have become overwhelming—a phenomenon Baumeister has dubbed "decision fatigue." When we make a series of small choices, we tend to approach the later ones less carefully. In a series of studies, researchers who manipulated the order in which customers made choices about a customizable purchase—such as the attributes of a new car or tailored suit—found that people were more likely to accept the default option for later questions, even if that meant paying more (Levav, J., et al., *Journal of Political Economy,* Vol. 118, No. 2, 2010).

Higher levels of stress can cause people to avoid making decisions and fail to compromise. Stress can also lead people to select the easiest option rather than analyze the choices to find the highest value.

The brain's response to stress helps explain some of these cognitive changes. Research by Mauricio Delgado, PhD, a professor and chair of the Psychology Department at Rutgers University–Newark, and others have shown that stress tends to have an inhibitory effect on the prefrontal cortex, which helps with tasks like planning, evaluation, and emotion regulation—all crucial for clear decision-making.

"Stress tends to inhibit goal-directed thinking and gives way to more habitual or impulsive types of behaviors," Delgado said.

THE ROLE OF RACE-RELATED STRESS

Amid a parallel pandemic of racial inequities, Hispanic, Black, and Asian American adults unsurprisingly reported more COVID-related stress than non-Hispanic White adults. Hispanic adults were most likely to say they struggled with the pandemic's ups and downs and felt unable to manage the stress they were facing.

"Race-related stress is a cognitively taxing experience," said Donte Bernard, PhD, an assistant professor of clinical psychology at the University of Missouri–Columbia. "It depletes cognitive resources, making adaptive decision-making more difficult."

In addition to the cognitive costs of racism, race-related stressors—such as experiences of direct discrimination, vicarious discrimination, and microaggressions—can make it harder to regulate emotions (Salvatore, J., & Shelton, J. N., *Psychologi-*

cal Science, Vol. 18, No. 9, 2007; Mekawi, Y., et al., *European Journal of Psychotraumatology*, Vol. 11, No. 1, 2020). On top of that, experiencing racism can lead to self-esteem issues, anxiety, depression, and even trauma on par with the effects of physical or sexual abuse, according to research by Bernard and others (Bernard, D. L., et al., *Journal of Traumatic Stress*, online first publication, 2021; Paradies, Y., et al., *PLOS ONE*, Vol. 10, No. 9, 2015).

"It's not difficult to imagine how these stressors can influence many of our life decisions," Bernard said. "Who is it safe to be around? What areas do I want to avoid? Where do I want to send my kids to college? Where do I want to work?"

Such stressors can even hinder decision-making over the long term. Allostatic load, which refers to the cumulative burden of chronic stress, disproportionally affects people of color (Guidi, J., et al., *Psychotherapy and Psychosomatics*, Vol. 90, No. 1, 2021). A 2020 meta-analysis found a small but significant link between allostatic load and executive function (D'Amico, D., et al., *Psychoneuroendocrinology*, Vol. 121, 2020).

"This chronic stress is not just impacting the decisions you're making now but also the decisions you're making later, because it can harm overall cognitive functioning," Sosoo said.

On top of the effects of racism, people of color have faced inequities throughout the pandemic, including worse health outcomes if they contract COVID-19 and less protection and flexibility from their employers. The Stress in America survey found that Hispanic adults, in particular, were much more likely than non-Hispanic White adults to know someone who had died of COVID-19 (42% versus 25%).

Like many parents and kids, New York City dad Paul Alban and his second grader, Melanie Alban, have had to navigate many changing protocols as schools try to curtail the transmission of COVID-19. The stress of figuring out how to best keep healthy has weighed heavily on parents.

AP PHOTO/SETH WENIG

But long-standing disparities in mental health care access also mean that relatively few Black, Hispanic, and Asian American adults will receive support from mental health professionals as they tackle these challenges (*Racial/Ethnic Differences in Mental Health Service Use Among Adults and Adolescents [2015–2019]*, Substance Abuse and Mental Health Services Administration, 2019).

"We know that people who are White are more likely than people of color to utilize mental health services when they are in mental distress," said HaeDong Shawn Kim, PhD, an assistant professor of family studies and community development at Towson University in Maryland.

Now, in a time of crisis, "you have one group who's used to seeking those resources, so they know where to go and who to call—and one group who isn't," he said.

A BURDEN FOR YOUNG ADULTS AND FAMILIES

Compared with other generations, millennial and Generation Z adults reported the highest stress levels, the lowest ability to manage that stress, and the most difficulty with both day-to-day and major decisions.

"Young adulthood is a prime time for making decisions that will shape your future, both in terms of career and social relationships," Delgado said. "That makes the uncertainty of this moment feel very stressful."

Young adults were also more likely to report physical health impacts of stress, such as headaches, fatigue, and sleep changes, as well as behavior changes, including avoiding social situations or changing their exercise habits.

Parents also said they had more stress around both basic and major decisions than adults without children, perhaps because they often bear the responsibility for even more choices. That includes juggling different rules and vaccination policies for adults and children of different ages, as well as ongoing changes related to work, school, and extracurricular activities.

Compared with 2020, parents were also more likely to say that they are having a hard time with family responsibilities, relationships, and mental health, suggesting a cumulative burden as the pandemic drags on.

Resilience in the face of those challenges can vary greatly from one family to the next, depending on level of access to resources such as health care, social support, and financial stability (Rosino, M., in *The Wiley Blackwell The Wiley Blackwell Encyclopedia of Family Studies*, John Wiley & Sons, 2016).

"Just because two families experience the same stressor, it doesn't mean that the degree of stress that they'll experience is the same," Kim said.

FURTHER READING

Stress in America
APA, 2021

Making choices impairs subsequent self-control
Vohs, K. D., et al. In Baumeister, R. F., *Self-Regulation and Self-Control,* Routledge, 2018

Stress and decision making: Effects on valuation, learning, and risk-taking
Porcelli, A. J., & Delgado, M. R. *Current Opinion in Behavioral Sciences*, 2017

Do you suffer from decision fatigue?
Tierney, J. *The New York Times Magazine*, Aug. 17, 2011

"People have the same number of decisions to make, or more, with fewer resources," compared with before the pandemic.

EFFUA SOSOO, PHD,
DURHAM VETERANS AFFAIRS HEALTH CARE SYSTEM

MAKING DECISIONS MORE MANAGEABLE

For those facing ongoing stress around decision-making, including parents, young adults, and people of color, psychological research points to some strategies that may help make choices feel more manageable.

Delgado and psychologist Megan Speer, PhD, of Columbia University, have found that when people experience positive emotions by reminiscing about past memories, their stress response decreases—cortisol levels lower and brain activity increases in areas responsible for emotion regulation and reward processing (*Nature Human Behaviour*, Vol. 1, 2017). Those effects are particularly pronounced if the memories involve relational connectedness, highlighting the crucial role of social support in coping with stress.

"We know from the literature that emotional support and human connection are some of the best ways to cope with stress," Delgado said.

Having a sense of control can also buffer feelings of stress and improve the quality of decision-making, according to research in Delgado's lab led by psychologist Jamil Bhanji, PhD. Participants performing a task who felt that setbacks were controllable were more likely to persist in the face of stress than those who felt that setbacks were uncontrollable (*Journal of Experimental Psychology: General*, Vol. 145, No. 3, 2016). Outside the lab, that could translate to tackling an overwhelming decision in smaller chunks, starting with the parts that feel most manageable.

Despite the persistent stress levels and their impacts on decision-making, most U.S. adults were optimistic about the future. Seventy percent of those surveyed said they were confident that things would work out once the pandemic ends.

In the meantime, Kim said, "making sure we connect some of the more vulnerable groups with basic resources, including mental health services and childcare, can increase their resilience to cope with stressors." ■

EMBRACING LEARNERS OF ALL AGES

Age-friendly campuses are catching on, thanks to shifting demographics, lower traditional student enrollments, and efforts to combat ageism. Psychologists are playing a lead role.

BY TORI DEANGELIS

College and university campuses have always offered a wealth of intellectual, cultural, and practical resources and opportunities for the surrounding communities. Now, a group of visionaries that includes numerous psychologists is working to help U.S. campuses expand their opportunities for older adults in a wide variety of capacities—as students, community and research partners, university-based residents, and more.

Those championing these initiatives are part of a growing movement called the Age-Friendly University (AFU), an outgrowth of the World Health Organization's 2002 "promoting healthy life" initiative. Employing the ideas and practices of similar successful initiatives—especially those in Southeast Asia and Oceania known for promoting lifelong learning, work opportunities, and healthy aging—AFUs have seen tremendous growth. To date, 89 colleges and universities worldwide are designated AFUs, nearly two thirds of them in the United States.

"It's really about making a culture change in higher education," said Nina Silverstein, PhD, a gerontology professor at the University of Massachusetts (UMass) Boston and a champion for AFUs in the United States. "It's about recognizing that universities could thrive much more if they recognized that there are many people on their campuses who are beyond [traditional young student] age groups and that they have a lot to contribute."

Alongside these aspirations are two relevant demographic trends, added APA's Div. 20 (Adult Development and Aging) President Joann M. Montepare, PhD, a social-developmental psychologist and director of the RoseMary B. Fuss Center for Research on Aging and Intergenerational Studies at Lasell University in Newton, Massachusetts, who has also been instrumental in promoting AFUs in the United States. One is a decline in the number of younger students attending colleges, especially private ones: Data from the National Student Clearinghouse Research Center show a 7.8% drop in undergraduate enrollment since the fall of 2019, the probable result of both the COVID-19 pandemic and a greater number of young adults with limited economic resources opting for work rather than college.

Students explore the dynamics of power as part of an intergenerational sociology class at Lasell University in Newton, Massachusetts.

COURTESY OF LASELL UNIVERSITY

The other is a rapidly expanding older population, said Nancy Morrow-Howell, MSW, PhD, who directs the Harvey A. Friedman Center for Aging at Washington University in St. Louis, which became an AFU in 2018. Thanks to their rich array of resources, campuses are ideal gathering places to promote healthy aging in various capacities, she said. Another important reason to make campuses more age inclusive: They are already environments where many faculty and staff spend much of their professional and working lives.

"As far as we can see, these

demographic shifts are here to stay," Morrow-Howell said. "So now is the time to respond in transformative ways to ensure long and healthy lives."

AFUS IN ACTION

In 2015, Dublin City University in Ireland hosted the inaugural meeting of the Age-Friendly University initiative. There, a leadership group unveiled the 10 principles of an Age-Friendly University (see sidebar), a framework that has since guided institutions seeking to become AFU partners or to launch initiatives to make their campuses more age friendly and inclusive. Professional organizations have also endorsed the principles, including the Academy for Gerontology in Higher Education (the educational unit of the Gerontological Society of America [GSA]) and APA's Div. 20.

AFU-designated campuses are participating in a variety of ways, with some expanding on existing age-friendly initiatives and others just getting started.

One arena for these activities is the classroom itself. Lasell University—the second U.S. institution to become an AFU, in 2015—created a natural vehicle for intergenerational classroom learning in 2000 when it built a residential facility for older citizens on the edge of campus called Lasell Village. A central feature of life for these residents, who range in age from 73 to 104, is taking part in 450 hours of learning and fitness activities, including many on campus.

At first, the university offered courses across the curriculum designed to engage older and younger students, with names like Generations in America and A Global History of Childhood. But while younger students loved the classes, some older participants felt that the courses negatively highlighted their age, in keeping with research showing that stereotype threat—or feeling at risk of conforming to stereotypes about one's group—also applies to aging.

To tackle this problem, Montepare introduced a new framework called Talk of Ages, which highlights topics of common educational interest rather than those that explicitly target age or generational differences. It includes a speaker series that covers such themes as "Exploring Life Through Science and Art" as well as a curricular component that features short intergenerational modules that are a part of regular classes.

"The framework makes use of practices shown to help to enhance intergenerational exchange, such as providing younger and older learners with meaningful roles, time to interact, and opportunities to develop personal connections in a novel learning experience," Montepare said.

At Central Connecticut State University (CCSU), in New Britain, Connecticut, which became an AFU in 2017, social and developmental psychologist Carrie Andreoletti, PhD, coordinator of gerontology at the university, has been running different iterations of a program she developed called WISE (Working Together: Intergenerational Student/Senior Exchange). The goal is to break down stereotypes and facilitate sharing and learning between students and older adults, in this case members of a nearby senior center. Prior to COVID, the older adults sometimes came to campus via bus and took part in classroom discussions; other times, students visited the older adults at the senior center.

During the pandemic, Andreoletti and her geropsychology colleague, Andrea June, PhD, moved the program to Zoom. As part of their virtual gerontology and adult development and

aging classes, they had students and older adults meet in virtual breakout rooms to discuss salient topics like relationships and ageism. In collaboration with the university's LGBT Center and several community partners, they held a virtual intergenerational conversation in late 2021 between younger and older LGBTQ+ adults and allies in the community.

In a similar vein, Lauren M. Bowen, PhD, an associate professor of English on the AFU team at UMass Boston, has included both undergraduates and lifelong learners in her English 101 class. Students in both age groups read articles and op-ed essays that rely on age-based stereotypes to make their arguments about reading and writing, such as that older adults are technologically illiterate, or that millennials are shallow. The two groups then write and share essays discussing how such ideas about literacy and language shape our sense of who we are and the potential effects of such ideas on intergenerational relationships. "The conversations [are] so rich and so much fun," Bowen said.

AFUs are getting creative in other educational domains as well. Florida State University, already a pioneer in age-inclusive programming and activities, expanded its offerings when it became an AFU in 2017. An example is InnoVenture Weekend, an event first held in 2018 that originated in the university's College of Engineering as a design contest for undergraduate and graduate students. Human factors psychologist Neil Charness, PhD, who directs the university's Institute for Successful Longevity, and his students joined the effort when the engineering college asked them for design ideas involving older adults.

Charness first tapped a research registry of local older adults, asking them to share everyday problems they encountered with products or processes—difficulties in opening medication bottles, for instance, or carrying heavy items from the car to the house. Students chose some of the ideas, and Charness asked the older adults to mentor the students.

Students developed several innovative ideas, including a mug that dispenses medications. The winning design, called Findr, is something most of us could use: a device that tracks often-misplaced items like car keys, eyeglasses, and TV remotes.

"To me, it was a perfect AFU-type activity because students and seniors worked together on a joint project, which they both enjoyed," Charness said.

BEYOND THE CLASSROOM

AFU advocates are also enthusiastic about making the entire campus climate more age inclusive. Some AFUs are collaborating with their equity, diversity, and inclusion (EDI) offices to include age as an identity factor along with identities related to race, ethnicity, and sexual and gender orientation. Advocates at Washington University, for example, have been working with their EDI office to create sessions on ageism and age that will be available on campus and in the community.

THE 10 AGE-FRIENDLY UNIVERSITY PRINCIPLES

- To encourage the participation of older adults in all the core activities of the university, including educational and research programs.
- To promote personal and career development in the second half of life and to support those who wish to pursue second careers.
- To recognize the range of educational needs of older adults.
- To promote intergenerational learning to facilitate the reciprocal sharing of expertise between learners of all ages.
- To widen access to online educational opportunities for older adults to ensure a diversity of routes to participation.
- To ensure that the university's research agenda is informed by the needs of an aging society and to promote public discourse on how higher education can better respond to the varied interests and needs of older adults.
- To increase students' understanding of the "longevity dividend" and the increasing complexity and richness that aging brings to our society.
- To enhance access for older adults to the university's range of health and wellness programs and its arts and cultural activities.
- To engage actively with the university's own retired community.
- To ensure regular dialogue with organizations representing the interests of the aging population.

Similarly, CCSU's gerontology program has partnered with the university's EDI office to offer an online course called Ageism First Aid to faculty and staff for free. The course, developed by the GSA, discusses what ageism is, how it develops, how it affects people of all ages, and how to communicate and interact more effectively with older adults to avoid this kind of bias.

It is also important to recognize that age inclusivity applies to anyone who doesn't fit the traditional 18-to-22-year-old college undergraduate mold, Morrow-Howell added.

To this end, Washington University is widening its campus culture through a program called Next Move that is geared to students who have returned to college in midlife or later. The university is working to support these students professionally and socially, Morrow-Howell said.

On the social end, AFU leaders on Washington University's campus are learning from Next Move students about the kinds of social activities they would like to see that differ from the undergraduate norm, such as family-friendly gatherings or events that better fit work and family schedules.

The university is also providing these students with advisory and career services that highlight their experience and teach them strategies to reduce any age discrimination they may face, such as lessons on new technology and ways to highlight their strengths to potential employers.

Preparing older students for the job market helps the students and society, Morrow-Howell added. "If workplaces have three to four generations working there and communities have people living in them until they're 100," she said, "we need to work together to envision new ways of doing things."

FURTHER READING

Age-Friendly Universities (AFU): Possibilities and power in campus connections
Montepare, J. M., et al. *Gerontology & Geriatrics Education*, 2020

Assessing age inclusivity in higher education: Introducing the age-friendly Inventory and Campus Climate Survey
Silverstein, N. M., et al. *The Gerontologist*, 2022

Making the case for age-diverse universities
Morrow-Howell, N., et al. *The Gerontologist*, 2020

Tools for advancing age inclusivity in higher education
Gerontological Society of America, Academy for Gerontology in Higher Education, 2021

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Two students in an intergenerational class at Lasell University discuss a story quilt project.

CHALLENGES AND OPPORTUNITIES

Many of those involved in the AFU movement have also been working on large-scale projects that seek to understand what challenges campuses face in becoming more age inclusive in general and how they can overcome barriers.

As one example, a research team that includes Silverstein, Montepare, Bowen, and UMass Amherst professor emerita Susan K. Whitbourne, PhD, among others, has conducted several related projects funded by the Chicago nonprofit RRF Foundation for Aging. These include developing an Age-Friendly Inventory and Campus Climate Survey (ICCS) piloted across all five UMass campuses and conducting a study using the ICCS at 22 campuses in the United States, reported in *The Gerontologist* (Vol. 62, No. 1, 2022).

A key driver of the team's work is to understand the gap between what campuses say they are doing and people's perceptions of what they're doing, Whitbourne said. That's because if people don't feel that a university is age inclusive, the programs won't make a difference.

In fact, the team's surveys found that "no more than 55% of the age-friendly practices that the campuses were undertaking were recognized by campus members at any level—faculty, staff, or students," Whitbourne said. "So, it became clear that it's one thing to have a purported age-friendly environment and another to actually accomplish that."

Next, the team will return to representatives from the 22 campuses to discuss how higher education can become more age inclusive in three areas: teaching and learning, career services, and human resources. Then, a national panel of higher-education experts will take those recommendations and develop applied strategies for

A resident of Lasell Village, a retirement community located on the Lasell University campus, attends an event with other residents.

COURTESY OF LASELL UNIVERSITY

use on any campus.

Realizing the AFU vision can be challenging, advocates admitted. The AFU principles don't address the physical environment of the university, with the tacit understanding that such changes can be costly. Language in the area is also evolving, with some preferring the more comprehensive "age inclusive" to "age friendly." Other concerns include the importance of being mindful when asking to be included in EDI activities, best integrating age-inclusivity efforts with important ongoing work on racial and other disparities, and keeping the momentum going over time, even when resources and funding are scarce.

But Silverstein believes the possibility of broadening campuses to take advantage of the many pluses that intergenerational learning and participation can offer makes these challenges worth it.

"The momentum for this movement is here, and I think it would invigorate many campuses," she said. "The most important thing is to get the conversation going." ■

● **For information** on how your university can become part of the Age-Friendly University (AFU) Global Network, go to www.geron.org/programs-services/education-center/age-friendly-university-afu-global-network.

4 QUESTIONS FOR GENEVIEVE DUNTON

Health psychologist Genevieve Dunton is looking at how the COVID-19 pandemic may have a lasting impact on the physical activity of children **BY HELEN SANTORO**

In the first few months of the pandemic, health psychologist Genevieve Dunton, PhD, was struck by the fact that kids' activity levels had decreased dramatically as the world shut down. Her son was 8 at the time, and like many parents, she worried that he was sedentary more often than usual when school recess became sitting in front of a computer and sports and other activities were canceled indefinitely.

"I saw an immediate impact on him and was really curious what was going on with other people," she said. "We had already seen rising rates of obesity and Type 2 diabetes in this age group prior to the pandemic, especially the kids in upper elementary school and early adolescence, so they were vulnerable."

Dunton, who teaches population and public health sciences at the University of Southern California, pursued that curiosity. She surveyed parents of kids ages 5 to 13 across the United States in April and May 2020 on how their kids' physical activity and sedentary behavior had changed from the pre-COVID to early COVID period.

As she suspected, she found that children's physical activity levels, particularly among older kids and girls, decreased significantly during this time (*BMC Public Health*, Vol. 20, No. 1351, 2020).

The timing of that sedentary behavior may mean those short-term changes become permanently entrenched, Dunton said, thus increasing the risk of obesity, diabetes, and cardiovascular disease—as well as the mental health effects of weight stigma—down the road. The *Monitor* spoke with Dunton about how her findings relate to public health and what these findings may mean for children moving forward.

MICHAL CZERWONKA

Your study looked at kids ages 5 to 13 years old. Why is this age group especially important to study?

Ages 5 to 13 is called the "adiposity rebound" period. Babies and toddlers have a higher percentage of body fat that they gradually lose up until about age 5. After that, their percentage of body fat starts to rebound again and there is potential for excessive weight gain or body fat accumulation that can put kids on a trajectory that is detrimental for health outcomes. We think about this period as an important window to make sure that activity levels are maintained and there is healthy eating in order to avoid excessive weight gain and body fat accumulation.

It also coincides with the period that we start to see physical activity levels decline in kids and sedentary behavior increase. That's partially due to biology—as humans age, activity is not part of their exploration and learning and development as much. But sometimes it declines at a much faster rate than it should, and that's often because of social influences.

Why is the pandemic such a concern when it comes to potential long-term health issues?

The pandemic is a point of concern because once behavior trajectories are altered, they can be really hard to undo. It may be harder to recover for several reasons. One is that human beings develop behavior patterns and habits that are particularly difficult to change. And the longer a period of disruption occurs, the more difficult it can be to emerge out of it. Also, whereas adults may have more intentional thought and self-control and they're aware that their activity level has changed, young adolescents may not have that much executive and cognitive control over the situation. The context has changed, and unless they're proactively coming back to their parents saying "I really miss soccer!" they may not be able to bounce back.

We have some unpublished data from 16 months after the beginning of the pandemic, and we did see that, for the most part, the 5- to 8-year-olds did bounce back, but it was the older group, the 9- to 13-year-olds, that didn't. They

remained less active and more sedentary. They may be the ones who are vulnerable to these bad habits, and perhaps with the younger children, adults are more involved and they want to make sure their kids get back into things like sports.

What can psychologists and other adults do to help children regain their levels of activity after the pandemic?

Psychologists can work with parents, schools, and teachers and physical education programs to make sure that activities are back and reinstated. For many kids, recess is one of the main ways that they were active, and once they were home, maybe their neighborhood is unsafe or they can't get outside because they don't have the yard space. Schools provide an opportunity for activity, so making sure that those systems are still in place for younger kids is key.

For adolescents, it's really tough. It may mean lowering the bar for entry into sports and activities, because it's often quite competitive at that point. Maybe thinking about more recreational opportunities, whether it's intramural or club sports or just free classes and lessons that are part of the school systems or community centers that can be more focused on fun and enjoyment for this age group.

Your broader research focus is on population health. How do you define population health, and how does psychology fit in?

I see population health as the health of a group of people or community. You can't just rely on the individual-level psychosocial process. You can go so far as an individual, and at some point, success depends on accessibility and availability at the community level. So that's where the intersection of psychology and public health come together.

This intersection is really fascinating. I was trained as a health psychologist, which was really focused on individual processes. So, looking at motivation, emotion, decision-making, and cognition and their relation to health behavior change. Then, when I finished my PhD, I went and did a master's of public health. I then began to see the intersection of psychology and public health in that we can look at the interactions between the individual processes that we study as psychologists and the context of the environment and policy.

We see that these individual-level psychosocial processes may unfold differently depending on the context that someone's in, including their community-level circumstances and policies in their community. We see that really playing out with the pandemic and physical activity in particular. A family or a parent or a child may have all the desire and motivation to be active, but when you live in a place where there are restrictions on activities, classes and lessons are shut down, then you have this interaction. ■

LEGACIES OF RACISM IN OUR HALLS OF JUSTICE

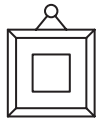
Can courthouse décor undermine fairness by encouraging racist decision-making?

BY MELISSA ANDERSON, MS, AND CYNTHIA J. NAJDOWSKI, PHD, UNIVERSITY AT ALBANY, STATE UNIVERSITY OF NEW YORK

Last December, the Tennessee Court of Criminal Appeals granted Tim Gilbert a new trial after determining his 2020 conviction in Giles County had resulted from a constitutionally unfair trial. Gilbert, a Black man, was judged by an all-White jury, but that was not the basis of his appeal. Instead, among other things, he was concerned about the décor in the deliberation room in which the jury decided his fate.

Gilbert's jury deliberated in the U.D.C. Room, a tribute to the United Daughters of the Confederacy, an organization dedicated to honoring the memory of Confederate soldiers. The room includes a Confederate flag, a Confederate leader's portrait, and other Confederate memorabilia. Gilbert argued that this setting created an atmosphere of tolerance toward racial prejudice and improperly emboldened the jurors to express racial bias, thus interfering with his right to a fair trial in an impartial environment. The appellate court agreed, stating that "having the jury deliberate in a room festooned with Confederate memorabilia and maintained by the U.D.C. implied that the court subscribes to the [C]onfederate principles."

In fact, psychological research shows that racist symbols and racist behavior tend to go together. As an extreme example, the prevalence of Confederate statues in southern U.S. counties is positively correlated with the number of lynchings that took place there. What does psychology say about the potential for racist memorabilia to increase risk of unjust trial outcomes? Dedicating a room to an organization that represents certain ideas is likely to convey that those ideas are socially acceptable and normative. Of concern is that exposure to expressions of prejudice increases prejudice, including among members of marginalized groups. Even if jurors serving in Gilbert's trial did not consciously reflect on the Confederate symbols or notice an impact on their decision-making, the presence of the items may have triggered implicit racist stereotypes and attitudes or "primed" jurors to unconsciously think or act in racist ways. Thus, psychological research suggests that Gilbert's concerns were well-founded.



AT ISSUE

Racist tributes in courthouses may communicate tolerance for prejudice, foster bias in jury decision-making, and intimidate non-White jurors and defendants.

"Judicial Notebook" is a project of APA Div. 9 (Society for the Psychological Study of Social Issues).

Unfortunately, the Giles County Courthouse is not an isolated example of how systemic racism is embedded physically within our halls of justice. In 2020, Terrance Shipp Jr., a Black man, faced charges in a Virginia courthouse filled with portraits of White former judges, some of whom had issued racially discriminatory rulings. Such displays suggest that the justice system is run by White people for White people. An important consideration is how Black people and other people of color feel when they encounter racist symbolism in courtrooms. What is the psychological experience of jurors of color who are made to deliberate in spaces like the U.D.C. Room? How does the symbolism affect Black defendants' perceptions of justice? Most Black people experience Confederate memorials as symbols of racial oppression and, when primed to think that the government values such memorials, Black people experience a reduced sense of belonging. Courtroom displays supporting racism are likely to have the same psychological effects.

The Giles County Courthouse's U.D.C. Room was established in the 1930s, and, according to the judge who presided over Gilbert's trial, juries have deliberated there regularly for at least the past half century. Since Gilbert raised his appeal, local officials decided to remove some of the Confederate items from the room, but the room continues to be dedicated to the U.D.C. It remains unclear whether the courthouse will continue to use the space as a deliberation room, but existing psychological science argues against doing so. Fair trials depend on the principle that the government should not convey any message to individuals involved in legal proceedings. Psychological research that shows how damaging racist symbolism is to justice could support efforts aimed at ensuring U.S. courtrooms are no longer permitted to reflect, endorse, or perpetuate White supremacy. ■

Psychologists can use advances in assessments and new technology to prevent a suicidal patient from acting on suicidal ideations.

CE

CONTINUING EDUCATION HOW TO ASSESS AND INTERVENE WITH PATIENTS AT RISK OF SUICIDE

BY REBECCA A. CLAY

After rising steadily for 15 years, the suicide rate in the United States dipped in 2019 and again in 2020. Provisional data released by the U.S. Centers for Disease Control and Prevention show a 5% decrease from the 2018 peak in suicides (Curtin, S. C., et al., *Vital Statistics Rapid Release*, No. 16, 2021).

CE credits: 1

Learning Objectives: After reading this article, CE candidates will be able to:

1. Discuss new approaches to screening for suicidality.

2. Describe evidence-based interventions for suicidal children, adolescents, and adults.

3. Explain the importance of collaboration with suicidal patients.

For more information on earning CE credit for this article, go to www.apa.org/ed/ce/resources/ce-corner.

That said, suicidal ideation is up, with about twice as many adults in 2020 reporting that they had seriously considered suicide in the previous month than in 2018 (Czeisler, M. É., et al., *Morbidity and Mortality Weekly Report*, Vol. 69, No. 32, 2020). "Suicide deaths and attempts are the tip of the iceberg," said psychology professor David A. Jobes, PhD, ABPP, who directs the Suicide Prevention Lab at The Catholic University of America in Washington, D.C. "Suicide ideation is the bigger challenge lurking under the water."

And what is frustrating, he said, is that practicing psychologists too often are failing to take advantage of recent advances in clinical research on what works best when it comes to detecting suicide risk and treating patients with proven suicide-focused care.

"Psychologists don't know how much evidence we've produced and that clinical practice is lagging behind what works," said Jobes. "It's exasperating to know that there is rigorous clinical trial research providing effective suicide-focused interventions . . . , yet most practicing psychologists don't know about them."

Part of the problem is that seeing patients who are suicidal can be both challenging and disconcerting, acknowledged Samuel Knapp, EdD, ABPP, author of *Suicide Prevention: An Ethically and Scientifically Informed Approach* (APA, 2020). All too often, Knapp said, psychologists feel the best way to respond to a patient who is suicidal is to send them to the emergency room and get them on antidepressants as soon as possible. But that is usually not the best approach, he said.

The field has come a long way since assessment consisted only of asking people if they were depressed and thinking of harming themselves and going no further, said Knapp. And treatment has progressed far beyond what was once the standard of care but has now been proven ineffective—asking people to sign a contract promising not to harm themselves. Today, said Knapp, there are three treatments that are well supported by outcome research—brief cognitive behavioral therapy (BCBT), dialectical behavior therapy (DBT), and Collaborative Assessment and Management of Suicidality (CAMS)—as well as other promising but less replicated strategies. Psychologists are also harnessing technology to help patients who are suicidal and shifting from top-down approaches to more collaborative ones.

ASSESSING SUICIDE RISK

Psychologists often use one of two screening instruments to assess suicidality: the Ask Suicide-Screening Questions tool or the Columbia-Suicide Severity Rating Scale. But these and other traditional assessments ask the wrong questions, said Craig Bryan, PsyD, ABPP, who directs the Suicide Prevention

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Program at The Ohio State University College of Medicine.

"The traditional approach is to think about suicidal ideation as the gateway to suicidal behaviors," said Bryan, author of *Rethinking Suicide: Why Prevention Fails, and How We Can Do Better* (Oxford University Press, 2021). "But there's increasing recognition that there are different trajectories toward suicide." Some people may progress through the sequence in a matter of hours; others may not follow the sequence at all.

A scale Bryan and colleagues developed called the Suicide Cognitions Scale asks questions that get at emotions that can render people vulnerable, such as feeling that people would be better off without you or that no one can help you solve your problems. Administering that scale alongside the Patient Health Questionnaire-9 depression screener improved the identification of patients most likely to progress to suicidal behavior in the next month, Bryan and colleagues found (*Annals of Family Medicine*, Vol. 19, No. 6, 2021).

Plus, suicidality can look different in different populations. Take Black adolescents, whose rate of suicide has escalated in recent years. Instead of harming themselves outright, they may put themselves in harm's way because they are willing to die, said W. LaVome Robinson, PhD, a psychology professor at DePaul University in Chicago (Robinson, W. L., et al., *Journal of Community Psychology*, Vol. 49, No. 5, 2021). "They may engage in more aggressive kinds of behaviors that draw harm or fire," said Robinson. Engaging in criminal or violent acts, for example, could result in someone else shooting an adolescent.

In addition to asking about risky behaviors, she said, psychologists should also identify sources of resilience within the Black community. "Racial socialization" efforts by families, schools, community, and the media can help adolescents develop a strong sense of racial and ethnic identity, which can help mitigate stressors like racism and discrimination and thereby lessen hopelessness and suicidality (Robinson, W. L., et al., *Annual Review of Clinical Psychology*, Vol. 18, 2022).

Adolescents may also be reluctant to disclose suicidal feelings for fear that health care providers will share that information with their parents. If psychologists feel that parents need to be informed of risks, they should actively collaborate with young people to develop a plan for disclosing that information to parents, said Taylor Burke, PhD, a clinical psychologist and associate director of suicide research within the Division of Child and Adolescent Psychiatry at Massachusetts General Hospital/Harvard Medical School. Providers should explain the rationale for breaching confidentiality and attempt to obtain permission to do so, said Burke. They should also offer teens options for how this can be done in a way that would make them feel most comfortable, whether that means having the provider tell parents or helping teens tell their parents directly.

"Unfortunately, our research indicates that almost half of treatment-seeking youth report a history of non-collaborative breaches of confidentiality, such as telling a teen's parent without permission or forcing a teen to tell their parent," said Burke (Fox, K. R., et al., *Research on Child and Adolescent Psychopathology*, online first publication, 2021). "These experiences were associated with negative outcomes, including poorer mental health outcomes, lowered trust in therapy, and lower likelihood of honest disclosures in the future."

The way clinicians ask patients about suicidality can also make a difference. Researchers have found that asking about suicidality in a way that suggests that no is the right response—questions like, "You're not thinking of harming yourself, are you?"—can cause patients to hide their true thoughts (Ford, J., et al., *Patient Education and Counseling*, Vol. 104, No. 4, 2021).

INTERVENING WITH PATIENTS AT RISK

In the intervention realm, researchers have found that another big shift is needed—the dismantling of the common idea that suicide is caused by mental illness. "We don't conceptualize suicide as a symptom of mental illness—diagnosing depression and treating depression," said Bryan. "We target suicide directly."

One way to do that is through BCBT focused on two key vulnerabilities: emotional dysregulation and cognitive rigidity. In a randomized controlled trial of soldiers with suicidal ideation or recent suicide attempts, Bryan and colleagues found that those who received BCBT were 60%

FURTHER READING

COVID-19 and suicide
Clay, R. A.,
Monitor, June 2020

How to talk to your patients about firearm safety
Clay, R. A.
Monitor, Nov./Dec. 2020

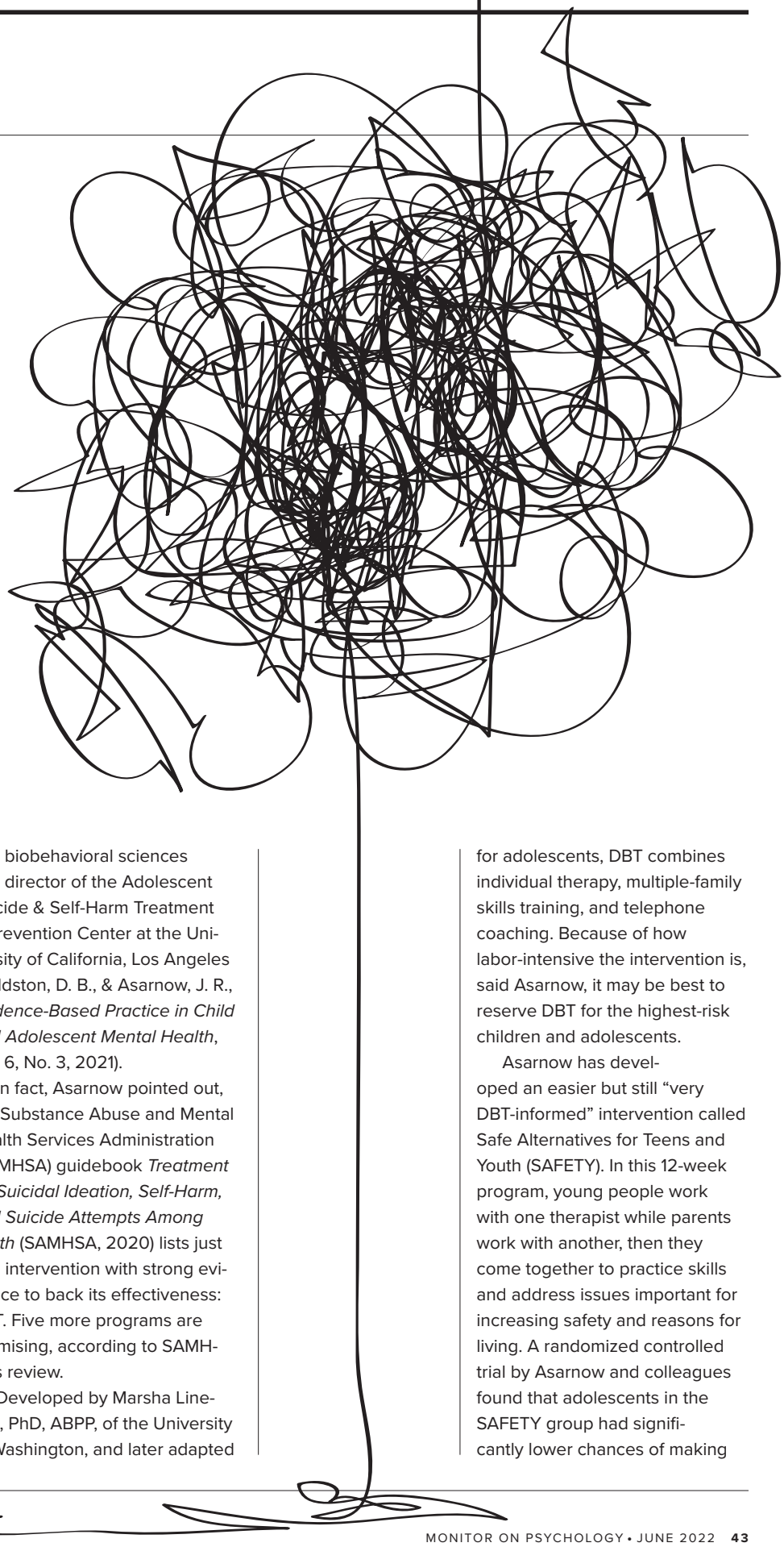
Commonsense recommendations for standard care of suicidal risk
Jobes, D. A.
Journal of Health Service Psychology, 2020

Limitations of screening for depression as a proxy for suicide risk in adult medical inpatients
Mournet, A. M., et al.
Journal of the Academy of Consultation-Liaison Psychiatry, 2021

New research in suicide prevention
Pappas, S.
Monitor, Sept. 2021

Research roundup: Treating suicidality through technology
Marzalik, J. S.
APA Services, 2021

Stopping military and veteran suicides
Novotney, A.
Monitor, Jan./Feb. 2020



less likely to report a suicide attempt during the follow-up (Rudd, M. D., et al., *The American Journal of Psychiatry*, Vol. 172, No. 5, 2015).

CAMS is another intervention based on the idea of targeting suicide rather than depression or other mental illness. "The idea of relegating suicidal ideation and behaviors to a symptom of depression isn't supported by the evidence," said Jobes. "The evidence shows that when we target and treat suicidal ideation and behaviors with different psychological treatment, we can significantly reduce suicidal risk."

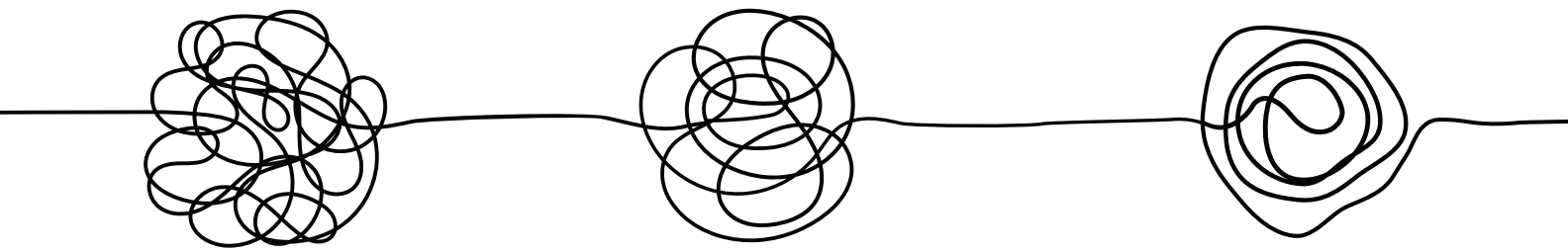
CAMS also represents a shift from an adversarial model in which the doctor knows best and must control the patient to a deeply collaborative approach in which the patient becomes a "coauthor" of their own treatment plan. The interactive process over six to eight sessions addresses the "drivers"—the problems that patients say make them suicidal, such as losing a job or intense self-hatred. "This approach is compelling to patients," said Jobes. And it works. A recent meta-analysis of nine CAMS trials found that when compared with other commonly used interventions, CAMS significantly reduces suicidal ideation, overall distress, and hopelessness (Swift, J. K., et al., *Suicide and Life-Threatening Behavior*, Vol. 51, No. 5, 2021).

When it comes to children and adolescents, there is still a paucity of evidence-based interventions despite the fact that suicide rates among youth ages 12 to 17 doubled between 2003 and 2018, said Joan Rosenbaum Asarnow, PhD, a professor of psychiatry and biobehavioral sciences and director of the Adolescent Suicide & Self-Harm Treatment & Prevention Center at the University of California, Los Angeles (Goldston, D. B., & Asarnow, J. R., *Evidence-Based Practice in Child and Adolescent Mental Health*, Vol. 6, No. 3, 2021).

In fact, Asarnow pointed out, the Substance Abuse and Mental Health Services Administration (SAMHSA) guidebook *Treatment for Suicidal Ideation, Self-Harm, and Suicide Attempts Among Youth* (SAMHSA, 2020) lists just one intervention with strong evidence to back its effectiveness: DBT. Five more programs are promising, according to SAMHSA's review.

Developed by Marsha Linehan, PhD, ABPP, of the University of Washington, and later adapted for adolescents, DBT combines individual therapy, multiple-family skills training, and telephone coaching. Because of how labor-intensive the intervention is, said Asarnow, it may be best to reserve DBT for the highest-risk children and adolescents.

Asarnow has developed an easier but still "very DBT-informed" intervention called Safe Alternatives for Teens and Youth (SAFETY). In this 12-week program, young people work with one therapist while parents work with another, then they come together to practice skills and address issues important for increasing safety and reasons for living. A randomized controlled trial by Asarnow and colleagues found that adolescents in the SAFETY group had significantly lower chances of making



suicide attempts than those in a treatment-as-usual group (Asarnow, J. R., et al., *Journal of the American Academy of Child & Adolescent Psychiatry*, Vol. 56, No. 6, 2017).

Suicide attempt survivors themselves are also offering ideas for improving treatment, said Melanie Hom, PhD, who along with colleagues asked survivors for their recommendations (Hom, M. A., et al., *Psychological Services*, Vol. 18, No.3, 2021).

Many of those recommendations represent a return to psychotherapy basics: Be empathetic. Use active listening. Collaborate with patients. "These are things psychologists are well trained to do, but they can go out the window when clinicians are focused on risk and safety concerns," said Hom, a clinical assistant professor of psychiatry and behavioral sciences at Stanford University School of Medicine.

Psychologists should also avoid stigmatizing patients who are suicidal. It may be harmful, for example, to tell patients that they have so much to live for or that it is selfish to consider suicide because they have children. "The provider might think that that will bolster someone's reasons for living, but it unintentionally can make someone feel ashamed about their suicidal thoughts or past behavior," Hom said, noting that such comments can also shut down honest discussion and make people less likely to seek help in the future. Instead, she said, be curious and ask what led the person to attempt suicide.

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USING TECHNOLOGY

Other psychologists are working on technological approaches to expanding access to suicidality assessments and interventions beyond the clinician's office.

In one recent randomized controlled trial, researchers tested brief videos designed to teach DBT skills to college students, for whom suicide is the second most common cause of death (Rizvi, S. L., et al., *Behaviour Research and Therapy*, Vol. 149, 2022). Participants also underwent ecological momentary assessment—via smartphone surveys—to assess their moods as they fluctuated over the course of a day. The intervention seemed to help prevent a worsening of symptoms as time progressed. And those who watched the videos more than once saw decreases in negative mood and increases in positive mood.

Tech approaches like this may be especially appealing to young people, said senior author Evan Kleiman, PhD, an assistant professor of psychology at Rutgers University. "Kids are comfortable using their phones," he said. "We have to meet them where they're at." Kleiman predicts that technological tools that are designed to assess people's suicidality, supplement therapy, serve as a bridge for those on waiting lists, and help those not yet ready for therapy will become widely available to psychologists in the next 2 to 3 years.

Emergency departments are already using technology in new ways. Patients who are suicidal often end up in the emergency department expecting to receive care, but what typically happens is long wait times while staff members search for an inpatient facility opening, said psychologist Linda Dimeff, PhD, chief scientific officer at Jaspr Health, a company that develops technology to help health care systems help people in suicidal crises.

"If a patient comes in on Friday, they may not leave until Monday or Tuesday when an inpatient facility is identified and they have arranged transport," she said. "What does a patient do during that time? They get more depressed, ruminating about what's not right." To better fill that waiting time, Jaspr created a tablet-based digital platform that gives patients access to evidence-based strategies they can start working on even as they

wait for in-person help.

Survivors of suicide attempts helped design the program alongside Jaspr psychologists, other experts in suicide science, and representatives from health care systems. The survivors also tell their stories via videos on the platform, sharing the strategies that helped them, but also offering hope. "Suddenly, you're not only getting suicide care but you're also having people who really understand where you're at helping you feel not so alone," said Dimeff.

While ecological momentary assessment and smartphone apps are attracting a lot of attention, clinicians should remember that telepsychology is also effective, even for high-risk patients. "For folks without as much experience with high-risk individuals, there's definitely still a lot of anxiety about using telepsychology," said Candice Johnson, PsyD, a staff psychologist for the National Suicide Prevention Telehealth Program at the VA Maryland Health Care System. For one, technological disruptions could be especially devastating for someone in crisis, said Johnson. And when a high-risk patient is not in your office, the psychologist must have a detailed plan for rallying help remotely if the patient needs it.

To assuage those fears, psychologists should review APA's *Guidelines for the Practice of Telepsychology*, Johnson recommended (Johnson, C. C., & Aldea, M. A., *Ethics & Behavior*, online first publication, 2021). Safety protocols are especially important when working with patients who are suicidal. Know where your patient is, look up the closest emergency services ahead of time, and get the patient's permission to contact others in their household in emergencies. Also make sure you are proficient enough that you can troubleshoot any tech problems patients face, Johnson added, and have contingency plans so you can reconnect in case you are cut off.

FOLLOWING UP

Other interventions focus on crises. Safety planning—written steps to follow in moments of intense distress—has been demonstrated to reduce suicidal ideation, attempts, and suicides, said Megan L. Rogers, PhD, a postdoctoral research fellow at Mount Sinai Beth Israel (Rogers, M. L., et al., *Professional Psychology: Research and Practice*, Vol. 53, No. 1, 2022). Many suicidal individuals are not in treatment, and even those who are do not see clinicians very often. "Sometimes it is only a 50-minute-a-week session," said Rogers. "What tools do they have for the other 167 hours of the week?"

There are two evidence-based safety-planning interventions, said Rogers: the Crisis Response Plan (Rudd, M. D., et al, *Treating Suicidal Behavior*, Guilford Press, 2004) and the Safety Planning Intervention (Stanley, B., & Brown, G. K., *Cognitive and Behavioral Practice*, Vol. 19, No. 2, 2012). Emphasizing collaboration, both interventions consist of recognizing warning signs; listing self-management strategies, like ways to distract oneself; and identifying possible sources of external help, including family and friends, health care providers, and crisis services. The Safety Planning Intervention also calls for removing guns and other items that could be used for suicide. (See www.suicidesafetyplan.com for a step-by-step guide and the April/May *Monitor* CE Corner on talking with patients about firearm safety.)

For Jobes, all these developments point to the crucial role that psychologists can play in suicide prevention. "Psychologists should be proud that we have developed suicide-focused interventions that are proven to be effective for reducing suicidal thoughts and behaviors," he said. "This reality is not sufficiently recognized by psychologists, let alone the larger mental health field, the news media, or the general public." ■

KEY POINTS

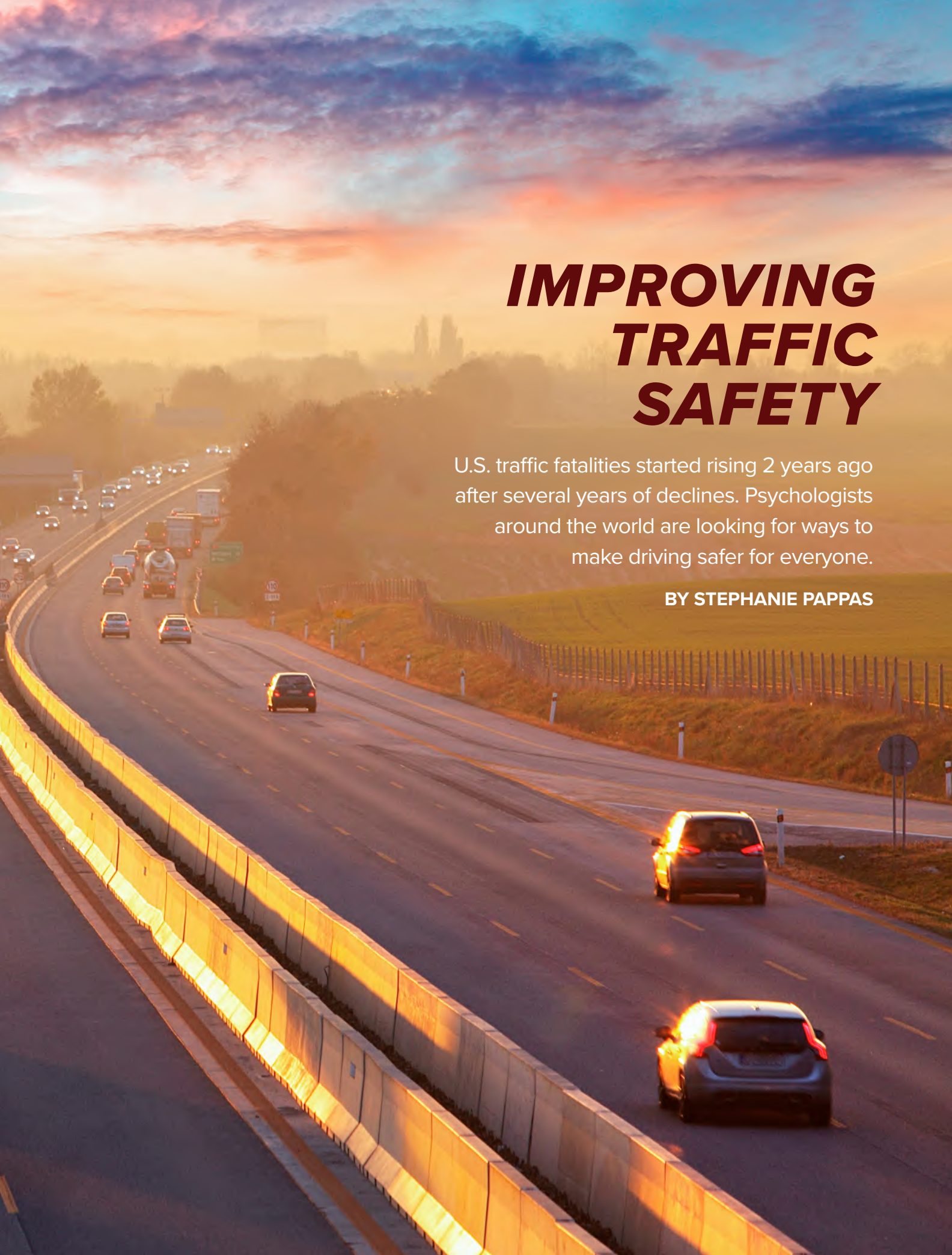
1. **Researchers recommend supplementing traditional screening tools that focus on depression or suicidality with questions about the circumstances that render patients vulnerable.**

2. **Clinicians should target suicide directly, using evidence-based interventions.**

3. **A collaborative approach that makes patients "coauthors" of their treatment is key.**

4. **Technology is taking suicide assessment and intervention beyond the clinician's office.**

Many U.S. cities have committed to Vision Zero, an effort to eliminate all traffic deaths and severe injuries by designing roads and policies to lessen the likelihood of crashes.



IMPROVING TRAFFIC SAFETY

U.S. traffic fatalities started rising 2 years ago after several years of declines. Psychologists around the world are looking for ways to make driving safer for everyone.

BY STEPHANIE PAPPAS

IN THE EARLY MONTHS OF THE CORONAVIRUS PANDEMIC, *WHEN ROADS WERE EERILY CLEAR, AN UNDERGROUND SUBCULTURE OF STREET RACERS DID THE FURTHEST THING FROM STAYING AT HOME: THEY BEGAN LAUNCHING ATTEMPTS TO SPEED FROM NEW YORK TO LOS ANGELES IN RECORD TIME.*

Speeding is among the deadliest of the risky driving behaviors.

These races, called Cannonball Runs, date back to the 1970s, but empty roads enabled audacious driving. Drivers beat each other's New York to LA records at least three times in 2020, averaging over 100 mph during their trips, with some reaching max speeds of 175 mph, according to *Road & Track*.

These Cannonball racers are extreme, but they are hardly alone in taking a riskier approach to the road during the pandemic. Though vehicle miles traveled decreased by 11% in the United States in 2020, traffic fatalities rose 6.8%, according to the National Highway Traffic Safety Administration (NHTSA). An estimated 38,824 people died. The trend continued in the first 9 months of 2021, with deaths rising 12% compared with the same period in 2020. This was the biggest percentage jump in the year-to-year 9-month statistics ever recorded. These numbers represent a reversal of the decreasing trend in traffic deaths seen between 2016 and 2019, according to NHTSA data, and they are all the more striking considering that economic recessions like the one in 2020 typically reduce traffic fatalities. They're also uniquely American, as most other high-income countries have reported fewer traffic deaths since the pandemic began.

The rising fatalities seemed to be caused by what University of Utah cognitive neuroscientist David Strayer, PhD, calls the "four horsemen of death." Together, they are speed, impairment, distraction, and fatigue, the human foibles behind more than 90% of vehicle crashes. All, experts say, can be worsened by relentless cycles of pandemic stress.

"People's brains are not perceiving information and processing emotion in the way that they did prior to the pandemic," said Kira Mauseth, PhD, a clinical psychologist at Seattle University who studies disaster behavioral health. "People might be a little bit more impulsive, they're a little bit less regulated, they might not be considering consequences."

Strayer's four horsemen aren't going to disappear as pandemic stresses ease, though. They are persistent contributors to crash deaths and injuries, and the only question is to what level they'll continue to kill. Around the world, psychologists are working to understand who is most at risk and why, studying everything from basic perceptual processing to cognitive biases to the way the environment can make matters better (or worse). The federal government is funding these efforts with the U.S. Department of Transportation's National Roadway Safety Strategy, unveiled in January, which highlights the need for more research into interventions against risky behavior (U.S. Department of Transportation, 2022).

EXCESSIVE SPEED

Research is starting to hint at some of the reasons for the initial jump in fatalities in 2020. A February 2022 report found that the people who reduced their driving the most during the lockdown phase of the pandemic were disproportionately middle-age and female, a relatively safe group of drivers (Tefft, B. C., et al., *Self-Reported Risky Driving in Relation to Amount of Driving During the COVID-19 Pandemic*, AAA Foundation for Traffic Safety, 2022). The 4% of drivers who started driving more during this period were largely young and male, the demographic statistically most likely to engage in risky driving behavior. The American Automobile Association (AAA) also found that those who drove more during the early pandemic were more likely than average to report recent risky driving behaviors, such as driving without a seat belt or speeding.

Speed on the road is among the deadliest of the four main human foibles that cause accidents, contributing to an estimated 11,258 vehicle-related fatalities in 2020, according to NHTSA data. These dangers are not evenly distributed: In urban areas, high-speed commuter routes often cut through low-income neighborhoods and neighborhoods with high

DAVE ALAN, ISTOCK/GETTY; PREVIOUS PAGES: TOMASSEREDA, ISTOCK/GETTY

proportions of residents of color. An analysis of Washington, D.C., traffic deaths between 2014 and 2021, for example, found that the two poorest wards, both of which are majority Black, had half the city's road fatalities despite being home to only a quarter of the population (Lazo, L., et al., *Washington Post*, Feb. 23, 2022).

Psychologists have found both perceptual and cognitive biases that nudge people toward unsafe speeds, said Ola Svenson, PhD, a psychologist and head of the Risk Analysis, Social and Decision Research Unit at Stockholm University in Sweden. Drivers overestimate how much time they'll save by speeding and grossly underestimate the increased accident risk at higher speeds (*Applied Cognitive Psychology*, Vol. 23, No. 4, 2009). They also underestimate how long it takes to stop at high speeds. In one study, Svenson and his team presented participants a scenario in which a child runs in front of a car driving 18 mph. At that speed, the driver can slam on the brakes and just avoid hitting the child. What then, the participants were asked, would happen if the driver were going 25 mph in this scenario?

The typical estimate, Svenson said, is that the car would hit the child while it was traveling at a speed of 12 mph. But this is a dramatic underestimate—in fact, the car would be going 23 mph when it hit the child (*Accident Analysis & Prevention*, Vol. 45, 2012). The researchers discovered that they could reduce this bias by providing information about how far a car travels during the split second it takes a driver to react, a finding with implications for public education campaigns (*Accident Analysis & Prevention*, Vol. 58, 2013).

Because many of these processes occur without much conscious thought, researchers also advocate for engineering the environment to reduce the likelihood of a crash. Crashes almost never have a single cause, says Ann Williamson, PhD, an emeritus professor at the University of New South Wales in Australia who has long studied human factors in road safety, and some roadways make it difficult for drivers to even discern what constitutes the correct behavior and what constitutes risky behavior. Visually cluttered roads, confusing signage, and broad thoroughfares that practically beg drivers to stomp on the accelerator can encourage behaviors that raise risk.

"We need to acknowledge that, yes, people will make errors, but when those errors are made by the system itself, we need to change the system," Williamson said. Design choices like medians, trees, and cycle lanes can obstruct drivers' views of the horizon and move their focus close to the front of their cars, encouraging more cautious driving. (See "Curbing the Need to Speed," April 2018 *Monitor*).

Situational factors can increase risk-taking, and the early pandemic seems to have set the stage. Under stressful circumstances, "people are going to do things that might be considered risky or out of character to feel good, to feel alive," Mauseth said.

Lack of enforcement also played a role during the early pandemic. In Australia, police reduced speed checks to focus on enforcing travel bans between states, says Mark King, PhD, a traffic psychologist at the Queensland University of

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Research shows that drivers underestimate how long it takes to stop at high speeds.

TOA 55, ISTOCK/GETTY

Technology Centre for Accident Research & Road Safety (CARRS-Q). Natalie Watson-Brown, PhD, also at CARRS-Q, happened to be surveying young drivers about road safety behavior when the pandemic first hit and saw an increase in respondents saying they were more likely to break the law because they knew they were less likely to be caught.

Street racers and stunt drivers also likely saw an opportunity during lockdowns. Evelyn Vingilis, PhD, a developmental and clinical psychologist in the Department of Family Medicine at Western University in Ontario, Canada, has long studied these particularly egregious forms of rule-breaking. It's hard to know how often street racing causes collisions or fatalities, given that racers aren't likely to admit to racing, Vingilis said, and most jurisdictions don't include street racing as a standard code on collision report forms. But Vingilis's research finds that the practice is fairly common around the world, especially among young men, with between 38% and 69% of adolescent males and men in their early 20s reporting recently racing other cars on the road (*Traffic Injury Prevention*, Vol. 10, No. 2, 2009).

The evidence so far suggests that education doesn't reduce racing, Vingilis said—after all, the danger can be part of the thrill. Strict penalties appear to be key to reducing this type of risky behavior. In 2007, Ontario introduced new legislation that made driving more than 50 kilometers an hour (31 mph) over the speed limit a serious offense, punishable by an immediate license suspension, car impoundment, and heavy fine or jail time. After that law was put in place, "we saw, on average, about 58 fewer young men per month were injured and killed in motor vehicle collisions," Vingilis said.

Engineering the road environment can help move a driver's focus close to the front of their cars, encouraging more cautious driving.

IMPAIRED BEHIND THE WHEEL

Aggression on the road often overlaps with risk-taking in other ways, such as a willingness to drive while impaired. Daniel Bradford, PhD, a clinical psychologist at Oregon State University, has found that alcohol dampens people's reactions, such

Drowsy driving can be as dangerous as driving while intoxicated.

APRIORI 1, ISTOCK/GETTY

as anxiety, to unknown stressors far more than it does to known stressors (*Clinical Psychological Science*, online first publication, 2022). This has potential implications for both the pandemic and drunk driving, Bradford said. Many of the stressors people faced during the height of the coronavirus crisis were unknown: Will you be exposed to the virus if you go shopping today? If you catch COVID-19, will it be a fever or death? And alcohol's unique ability to suppress stress about unknowns may have been one reason that alcohol consumption rose in the United States in 2020 (Pollard, M., et al., *JAMA Network Open*, Vol. 3, No. 9, 2020). Likewise, the dangers one might face while driving drunk are highly variable, Bradford said. You might get pulled over or crash, but you also might get home without incident. If alcohol dampens reactions to these kinds of unknown stressors, it could contribute to decisions to get behind the wheel after imbibing.

Drunk driving has declined precipitously over the decades, but it still played a role in 11,654 traffic deaths in the United States in 2020, according to NHTSA data. Marie Claude Ouimet, PhD, a research psychologist at the Université de Sherbrooke in Quebec and director of the Road Safety Research Network of Quebec, and her colleagues have found that although there is overlap, there are differences between people with a history of drunk driving compared with those who drive recklessly in other ways (*PLOS ONE*, Vol. 11, No. 2, 2016). Speeders tend to be high in sensation-seeking, risk-taking, disinhibition, and poor decision-making. Repeated driving while impaired (DWI) offenders are high in disinhibition and alcohol misuse. People with a history of both DWI and other reckless driving are high in substance misuse and sensation-seeking, low in agreeableness, and tend to be reward-sensitive.

Ouimet and her colleagues are trying to use this information to tailor interventions to repeat offenders. They've found, for example, that brief motivational interviewing reduces future arrests in young and early middle-age drivers with a DWI

arrest compared with a typical education and advice intervention (*Alcoholism, Clinical and Experimental Research*, Vol. 37, No. 11, 2013). The researchers are currently working to evaluate Quebec's current program of targeting interventions to subgroups of offenders.

"For a long time, a lot of the thinking was that all of the individuals who drink and drive have a severe alcohol use disorder. What we see in reality is that is not necessarily true," Ouimet said. Some DWI offenders struggle with periodic binge-drinking and poor decision-making, she said; for others, drunk driving is part of a larger constellation of reckless behavior. Specific targeted treatment may promote behavior change in different subgroups of offenders (*Alcoholism, Clinical and Experimental Research*, Vol. 43, No. 2, 2019).

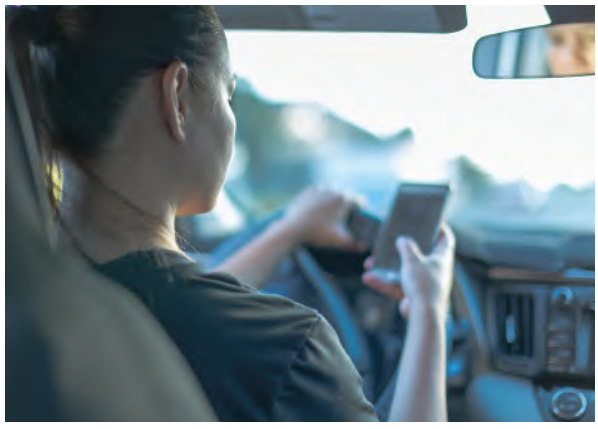
FEELING FATIGUED

The pandemic has been an exhausting experience for many, especially for front-line workers pulling grueling shifts. The resulting fatigue can be as dangerous as driving intoxicated, said the University of New South Wales's Williamson. "When you've done a double [shift] and you've suddenly found that it's been 16, 17, 18 hours since you've last slept and it is 2 o'clock, or 3 or 4 in the morning, you're really asking for problems," Williamson said. "It is highly risky."

The NHTSA reported 633 drowsy-driving fatalities in 2020, but identifying fatigue as the cause of an accident can be difficult unless the driver clearly fell asleep at the wheel. Drew Dawson, PhD, a cognitive psychologist at CQUniversity Australia, has suggested a new way of classifying accidents based on a sliding scale of likelihood that fatigue played a role (*Sleep Medicine Reviews*, Vol. 42, 2018).

Research suggests that people know fatigue is bad for their driving abilities, but they don't always respond effectively. A qualitative study of nurses who worked night shifts found most responded to drowsiness with less effective strategies, such as listening to music in the car (Smith, A., et al., *International Journal of Nursing Studies*, Vol. 112, 2020). Few tried the more effective option of napping before leaving work.

It's not just about sleep, though, Williamson said. Human brains are poorly designed to pay close attention to monotonous tasks over extended periods of time. This can be a problem for long-distance truck drivers, some of whom saw the rules governing their hours of service relaxed in 2020 because of the need to keep essential goods moving. The challenge, Williamson said, is finding activities that effectively engage the brain without distracting the driver from the road. Researchers in Israel have found that trivia seems to fit the bill, increasing alertness and reducing driving deterioration compared with other mental tasks (Oron-Gilad, T., et al., *Accident Analysis & Prevention*, Vol. 40, No. 3, 2008). Such findings have led Australian authorities to put up trivia-game road signs on barren stretches of highway. (Sample question: "What is a monotreme?")



When a driver's mind wanders, their response time slows and unexpected situations can turn deadly.

GLOBALMOMENTS, ISTOCK/GETTY

Still, task-related driving fatigue is a difficult problem to crack, Williamson said. Brain games get drivers only so far down the road, and long-distance driving is still mentally exhausting. "I don't think we're there yet," she said. "We've still got some work."

DISTRACTED TO DEATH

While some drivers are struggling with fatigue on the roads during the pandemic, many are also likely contending with higher-than-usual levels of distraction. Distracted driving contributed to 3,142 deaths in 2020, according to the NHTSA.

Many front-line workers, especially in medicine, have reported intense stress on the job. Research indicates that work stress can spill over into the commute, leading to rumination while driving and, subsequently, riskier driving behaviors (*Journal of Occupational Health Psychology*, No. 25, Vol. 4, 2020). "If you're thinking about work too much, you're not paying as much attention to what's happening on the road," said Katrina Burch, PhD,

an industrial and organizational (I/O) psychologist at Western Kentucky University, who led the research.

The relationship between work stress and road safety can be quite complex, said Charles Calderwood, PhD, an I/O psychologist at Virginia Tech who just launched a project looking at work stress, strain reactions, and commuting behavior with funding from the National Institute for Occupational Safety and Health. "Challenge stressors," or difficult but attainable and satisfying problems people solve in their workday, may make people more alert or energetic on the drive home, while more negative stressors might not, Calderwood said.

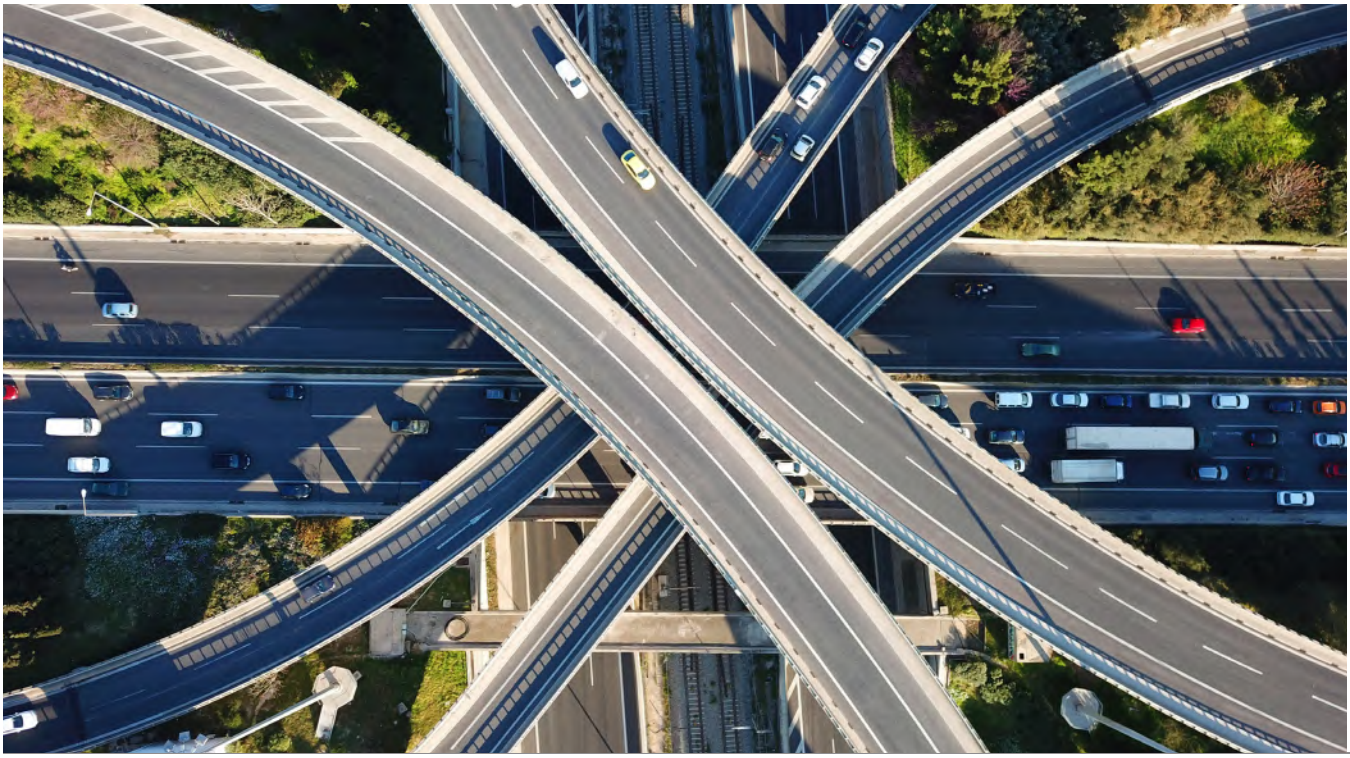
Stress can also act indirectly on driving. For example, pandemic stress might cause poor sleep, which in turn could cause more crashes, Calderwood said. "Our work tries to be really dynamic in how we look at these processes over time," he said.

It's not just work stress, said Jing Feng, PhD, a cognitive psychologist at North Carolina State University who studies attention and driving. When a driver's mind wanders, response time slows, meaning that unexpected situations can rapidly turn deadly, she said (*Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, Vol. 59, No. 1, 2016). COVID-19 made many ordinary tasks more stressful, potentially increasing the amount of mental distraction drivers experience. "I think this pandemic has likely intensified some of the challenges," Feng said.

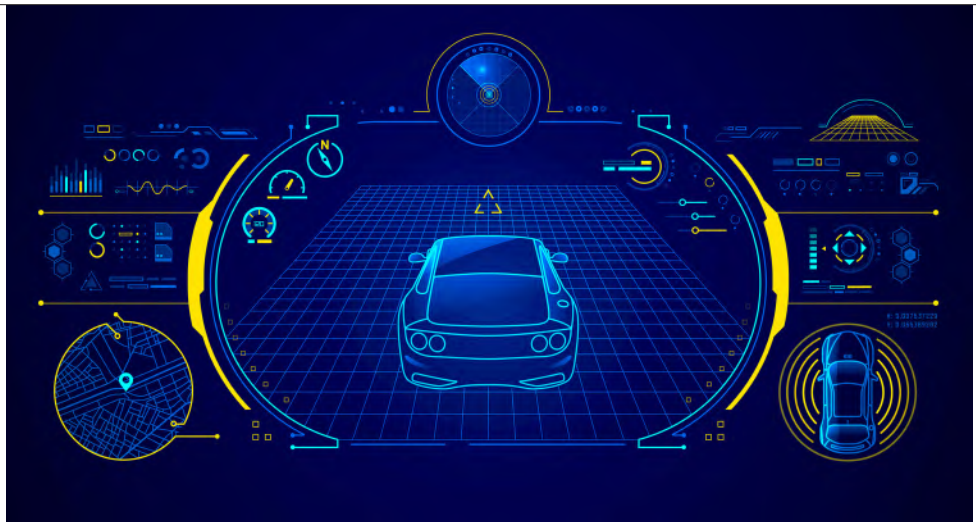
Those challenges were stark to begin with. Not only do drivers carry around pure distraction in the form of smartphones, but cars are also now increasingly preloaded with features that divert attention from driving, said the University of Utah's Strayer. "You have this explosion of technology," he said. "The cars are coming equipped with touchscreen displays, heads-up displays with projections onto the windshield, voice control . . . It's like distraction on steroids."

There are NHTSA guidelines for automakers for in-car displays, Strayer said, but they're voluntary and rarely followed. Strayer and his team have been working to develop benchmarks for distraction to evaluate vehicle design. They've found that some tasks, like using speech-to-text technology or voice command, take a surprising cognitive load (*Cognitive Research: Principles and Implications*, Vol. 16, 2016). Users sometimes remained distracted from the road for up

Efforts to improve road and driver safety may put psychologists in demand more than ever.



AERIAL-MOTION/SHUTTERSTOCK



JACKIE NIAM, ISTOCK/GETTY

to 27 seconds after disengaging with speech to text. NHTSA guidelines state that users should not have to look away from the road for more than 2 seconds at a time while interacting with a car's technology, and no more than 12 seconds in total, but participants in Strayer's studies sometimes spent up to 2 minutes fiddling with things like in-car navigation systems.

Strayer and his team are now consulting with the Australian Automobile Association, which hopes to develop a 5-star rating system for in-vehicle technology. Right now, Strayer said, there is no way for consumers to easily compare the usability of cars' displays like they might fuel efficiency or crash ratings. "Maybe you get a 2-star rating saying, 'This car is really nice and fun to drive, but the electronics in the car are extremely challenging,'" Strayer said.

Psychologists are also working to test maximally effective, minimally distracting tech in cars. Benjamin Wolfe, PhD, and Anna Kosovicheva, PhD, psychologists at the University of Toronto Mississauga in Canada, have been testing alert systems that warn drivers of a hazard, such as an animal in the road. They've found that simple alerts, such as a flashing red bar across the dash, are just as effective as more complex ones, like a box projected around the object on the roadway (*Cognitive Research: Principles and Implications*, Vol. 6, No. 80, 2021). Alerts like these can buy people about 60 milliseconds over a no-alert condition, Wolfe said, which is enough time to travel half a car length at highway speeds.

A SAFER FUTURE

Better tech, from seat belts to air bags to driver-alert systems, has made cars safer. And increasing vehicle automation could potentially reduce the killing power of speed, impairment, distraction, and fatigue.

But automation can also be a crutch, and it is one that psychological scientists worry about. A car that does most of the driving itself, requiring a driver to take over only in times of rare emergencies, would be a very unsafe car indeed given the human inability to remain alert while not engaged. As cars do more of the work, psychologists will need to be there to push back against automation that makes roads more dangerous. (See "Along for the Ride," January 2015 *Monitor*).

This is especially true when considering vulnerable road users, such as pedestrians, bikers, and motorcyclists. These users have become an increasing share of motor vehicle deaths for a variety of reasons, including the features of cars that make drivers safer, such as higher, heavier vehicles. There is also an increasing share of older pedestrians on the road because of the aging of the population, said CARRS-Q's King: "Once you're older, it's actually quite easy for a knock that would be just some bruising for a young person to be life-threatening."

Many cities have committed to Vision Zero, an effort to eliminate all traffic deaths and severe injuries by designing roads and policies to lessen the likelihood and severity of crashes. This focus on safety may put psychologists in more demand than ever. Preliminary research by Wolfe and Kosovicheva has found that when dangerous situations—such as a person walking into traffic—become rare, drivers become less likely to react quickly and decisively. In other words, the safer roads get, the harder it becomes, cognitively speaking, to prevent every accident. "We can do all of this work in infrastructure and tech and potentially in training," Wolfe said, "but we've got this little sliver that we need to figure out how to address separately as a cognitive problem for drivers." ■

Many cars are now preloaded with features that divert attention from driving.

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Information as a source of distraction
Federal Highway Administration Research and Technology, 2015.

Adolescent driving behavior before and during restrictions related to COVID-19
Stavrinos, D., et al. *Accident Analysis & Prevention*, 2020

SPIDER: A framework for understanding driver distraction
Strayer, D., & Fisher, D. *Human Factors*, 2016

STANDING TALL: A NEW STAGE FOR INCOMPETENCY CASES

A growing number of people with serious mental illness are getting entangled in the legal system, often for minor crimes. Psychologists are figuring out how to get them essential mental health care instead.

BY TORI DEANGELIS

There has been a significant increase in "incompetent to stand trial" cases over the past few years. Recent federal funding may help bolster services to address the causes and treatment for this population.

As a supervising unit psychologist at Oregon State Hospital, Jessica Murakami-Brundage, PhD, finds her work with people with serious mental illness both rewarding and meaningful. "I see people at some of their lowest points," she said, "and to see people get better and recover is an amazing privilege."

Over the past several years, however, she's been alarmed by the increasing number of patients who are committed for "competency restoration"—gaining or regaining the ability to defend themselves in court against criminal charges.

"My main job is to help them be able to aid and assist their attorney—to learn their plea options and follow court rules," Murakami-Brundage said. She added that it's frustrating for her because she'd much rather focus on helping them recover from serious mental illness. "Most of my patients would benefit much more from receiving stable housing and psychosocial services," she said, "than from learning what a judge does."

An example is her patient Jason (not his real name), a middle-aged man with schizophrenia who was arrested for threatening someone in a store. "I know that the pressure I was under was why I lashed out the way that I did," he said. He was arrested but found incompetent to stand trial (IST) due to symptoms of psychosis and sent to Oregon State Hospital.

When Jason discovered that the main reason he was there was to receive psychiatric medication and to learn "legal skills," he said he was disappointed that he wouldn't be receiving the kind of care that would help him improve long-term, in particular substance abuse treatment. While he appreciated the stability of the hospital ("There is no begging here, no borrowing, no stealing," he said), he was worried he'd be released back to homelessness.

"I'm afraid that with one more mistake, that's going to be the end of it," as he put it.

The rise in those deemed incompetent to stand trial is at least partially due to the fact that there are not enough community treatment options.

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The IST designation was originally intended to protect those with serious mental illness from unfair imprisonment.

UNDERSTANDING ALLEGATIONS

WHAT DOES IT MEAN TO BE 'INCOMPETENT TO STAND TRIAL'?

According to the APA Dictionary of Psychology, in order to be competent to stand trial, a person must be able "to understand and appreciate the criminal proceedings against him or her, to consult with an attorney with a reasonable degree of understanding, and to make and express choices among available options." At any time during the proceedings, the judge, prosecutor, or most commonly, the defense attorney, may raise concerns about a defendant's competence, at which point the judge will usually order a competency evaluation. Being incompetent to stand trial, or IST, differs from the "not guilty for reason of insanity" defense: IST means that a defendant lacks the capacity to understand the allegations, while the insanity defense refers to the defendant's mental state at the time of the crime.

Jason's situation is not unique to Oregon: It is happening all over the country, thanks to systemic factors that have significantly increased the number of people with serious mental illness who are found incompetent to stand trial. A typical scenario is that a person is arrested for a crime, often a minor one such as loitering or trespassing. Then they enter the court system, and if the judge or an attorney suspects the person might be IST, they can request an evaluation, and the judge usually orders one. The person then waits for that evaluation, usually in jail, and sometimes for a long period of time. If they are found unfit once they are evaluated, they are sent to a state hospital, back to jail, or in some cases to community treatment to be "restored." That can take weeks, months, even years. When their cases are resolved one way or another, these individuals are often released to the streets, unable to get the care that they need and sometimes starting the whole cycle over again.

Recent federal funding may aid those who are interested in improving this frustrating situation. In May 2021, the Substance Abuse and Mental Health Services Administration (SAMHSA) distributed $3 billion in American Rescue Plan (ARP) funding for its mental health and substance use block grant programs, after providing supplemental funding of nearly $2.5 billion for these programs in March 2021—the most ever given to these programs. In December 2021, the ARP granted the Centers for Medicare & Medicaid Services new authority to promote access to Medicaid services for people with mental health and substance use disorder crises, including funding for states that provide qualifying mobile crisis intervention services.

"We're at a really good moment where instead of cutting mental health services, we're putting more money into them," thanks in part to increased awareness of mental health issues during the pandemic, said Debra A. Pinals, MD, a clinical professor of psychiatry at the University of Michigan Medical School; director of its Program in Psychiatry, Law, and Ethics; and a leading mental health and forensics expert. "There are lots of things happening that can potentially create pathways toward better and more robust community-based services"—services that would move people deemed IST either out of the forensic system entirely or at least partially into community care as appropriate, she said.

WHY THE UPTICK?

While it's unclear exactly the extent to which IST cases have risen in the past number of years, it appears to be a significant increase. In 2017, Katherine

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To competently participate in a trial, a person must understand what they are accused of, be able to communicate with their attorney, and comprehend their options in the legal process.

Warburton, DO, medical director at the California Department of State Hospitals, and colleagues surveyed 50 of 51 U.S. jurisdictions. They found that 82% of jurisdictions reported an increase in referrals for competency evaluation, while 78% reported an increase in referrals for competency restoration (*CNS Spectrums*, Vol. 25, No. 2, 2020).

Meanwhile, clinical psychologist Lauren Kois, PhD, an assistant professor at the University of Alabama who studies IST, has been working to discern the actual number of people who are getting competency evaluations nationwide. In a study that is not yet published, her team found that court records were extremely inconsistent and often unavailable, with just 22 state judiciaries able to provide data on the number of defendants evaluated each year. Kois estimates that there are probably between 120,000 and 200,000 of these evaluations annually. This is 2 to 3 times the number that is most often cited—60,000—which was the number of evaluations reported in the book *Adjudicative Competence* (Springer, 2002) by University of South Florida psychologist and forensics expert Norman Poythress, PhD, and colleagues.

Why are these cases rising so dramatically? Many agree that an underlying reason is insufficient community treatment options for people at risk of offending—the result of both short- and long-term budget cuts, starting with deinstitutionalization in the 1950s.

"Correctional systems have essentially taken over as the primary providers of mental health services" for those with serious mental illness, said Philip Candilis, MD, a professor of psychiatry and behavioral sciences at The George Washington University School of Medicine and Health Sciences and medical director at Saint Elizabeths Hospital in Washington, D.C. "And that's simply not how the field [of mental health] sees itself." Related

to this, judges and lawyers have taken to using the "incompetence" label as a way to get people with serious mental illness and forensic involvement into treatment because of their belief—and to some extent the reality—that placing these individuals in psychiatric hospitals is the only way to get them mental health care, even though that "care" often focuses mainly on restoration, Candilis and others noted.

Another factor highlighted by many experts is that it has become increasingly difficult to civilly commit people, that is, to place people who are not criminally charged but who are deemed dangerous to themselves or others and who have a treatable mental illness in state hospitals, often involuntarily. Years ago, fewer restrictions on civil commitment sometimes led to unfair institutionalization for those with serious mental illness or developmental disabilities. The 1960 ruling in *Dusky v. United States*—that defendants must be sufficiently informed about the legal process to receive a fair trial—subsequently allowed individuals with these conditions to undergo competency restoration instead. But one unintended consequence was putting more people with serious mental illness in contact with the criminal justice system.

ALLANSWART, ISTOCK/GETTY

"CORRECTIONAL SYSTEMS HAVE ESSENTIALLY TAKEN OVER AS THE PRIMARY PROVIDERS OF MENTAL HEALTH SERVICES."

PHILIP CANDILIS, MD, MEDICAL DIRECTOR, SAINT ELIZABETHS HOSPITAL

The expense involved in restoring competency is much higher than for general mental health care.

Jen Snyder, PhD, a clinical psychologist at Oregon State Hospital, has been seeing that trend in her setting. She said that starting several years ago, she and colleagues started to notice that people coming into the hospital because they were found to be IST had very similar presentations to those sent there via civil commitment: Both had serious mental illnesses that needed psychiatric and psychological care much more than they needed criminal punishment.

"These were all people who were very sick—it's just that one group had charges and the other didn't," she said.

To add to the problem, people with mental illness who are experiencing homelessness have easy access to dangerous drugs and are thus arrested more often for drug-related infractions. As a result, "people are coming in more sick and more unstable than ever, and our rates of seclusion and restraints have risen because of this," Murakami-Brundage said. And because of her hospital's focus on restoration, "they're not getting the substance abuse treatment they need."

Collectively, these factors lead to a system that is not only failing to help those in need but is also exorbitantly expensive. In Kois's survey of states, she found that state hospital beds for people awaiting competency evaluations ranged from $480 per night in rural areas to $1,300 per night in urban areas, with an average of about $1,000 per night. Three months of restoration in a state hospital "could pay a psychologist for a whole year just to do mental health evaluations," Kois said. "And that would be a smart investment, because a person would also be receiving general treatment recommendations, not just those specific to competency"—not to mention freeing up funds to provide better and more cost-effective community services.

LARGE-SCALE IMPROVEMENTS

Mental health providers, researchers, judges, state and local leaders, and other stakeholders are beginning to tackle this problem from a variety of angles, some at larger systemic levels and others at more discrete entry points within the forensic and mental health systems.

In Colorado, two forensic psychologists with decades of experience in addressing and consulting on competency cases—Daniel Murrie, PhD, of the University of Virginia's Institute of Law, Psychiatry, and Public Policy, and Neil Gowensmith, PhD, of the University of Denver's Graduate School of Professional Psychology—are serving as federally appointed "special masters" to help the state overhaul its competency system.

The move occurred after 8 years of legal disputes in which Disability Law Colorado, an advocacy group, sued the state twice about lengthy wait times for hospitalization, making it clear that the system needed fixing, said Murrie. The U.S. District Court for the District of Colorado appointed the team to step in, asking them to submit a plan that highlighted deficiencies in the current state system and possible paths forward.

After a mediation process

between the advocacy group and the state, in 2019 the parties developed a consent decree that everyone in the system is bound to, which lays out rules of action and consequences if they're not followed. At its heart is a triage system that defaults more clinically stable people accused of minor offenses and deemed IST to outpatient rather than inpatient restoration. But it also ensures that people with urgent mental health needs receive more rapid triage to the hospital, requiring the most acute cases to be admitted within 7 days and less urgent cases within 30 days. The decree also mandates the use of "forensic navigators" to monitor the hospital waiting list each week and triage priorities as individuals' mental health needs shift.

When state hospitals fail to comply by not meeting the appropriate time frames, they are fined, and the resulting funds are spent on innovative diversion projects such as housing for the homeless and court dockets designed specifically for competency cases, Murrie noted.

The team's aim is to strike a balance that is efficient for those who need to be in the system but doesn't needlessly involve those who probably don't need to be, such as those charged with minor offenses like shoplifting or sleeping in public parks, Gowensmith said. "There are a lot of people—especially with lower-level charges—who are being put into the system because the community and courts have few options otherwise," he said. "So, they pull the only lever they have, which is the competency lever—but it's not the right lever for a lot of these folks."

In another effort to improve the IST situation in a number of states, Lisa Callahan, PhD, a senior research associate at Policy Research Associates, a behavioral health research and technical assistance company, has been helping to oversee a federally funded program called Learning Collaboratives, run through SAMHSA's GAINS Center for Behavioral Health and Justice Transformation. Teams of stakeholders from different states apply competitively for the program, which so far has provided support and technical assistance in 12 states, Washington, D.C., and Nashville, Tennessee.

The program provides teams with a big-picture education on

MITIGATING CONSEQUENCES

RESTORATION VERSUS STANDARD TREATMENT

The term "restoration" can be confusing to anyone who isn't versed in this aspect of the law, as it implies a person's ability to become well. However, in the case of individuals found incompetent to stand trial (IST), it has a more specific meaning: helping them gain the tools they need to understand the proceedings against them and act accordingly (see sidebar on page 64). By contrast, standard mental health treatment for those with serious mental illness encompasses the gamut of treatment types and supports that can help these individuals gain stability internally and externally, such as medication, social supports, therapy, and maintaining a treatment routine in the community.

Forensic psychologists and IST experts Daniel Murrie, PhD, of the University of Virginia's Institute of Law, Psychiatry, and Public Policy, and Neil Gowensmith, PhD, of the University of Denver's Graduate School of Professional Psychology, have identified other basic differences between restoration and standard treatment:

RESTORATION: It's short term, involuntary, and has the singular focus of returning the person to court. It is provided by a smaller number of state-qualified providers than standard treatment, is subject to time limits imposed by the court, and most often occurs in state hospitals, though it can also take place in jails or in community programs. It is typically not confidential nor is it covered by insurance.

STANDARD MENTAL HEALTH TREATMENT: It's longer term, voluntary, has several different areas of potential focus and specialization, is confidential, and can be reimbursed by insurance. It can be provided by a wide variety of specialized providers, is often holistic in nature, has no time limits, and occurs more often in the community.

DENNY ELLIS/ALAMY

the IST phenomenon, gives technical support to help them plan and implement processes that address their system's particular needs, and fosters connections so that they can share ideas on how to improve their systems.

One participating team is the Washington, D.C., outpatient competence restoration program, which is affiliated with the city's Department of Behavioral Health and Saint Elizabeths Hospital. It is one of just 16 outpatient restoration programs in the country (Colorado's is another) and is seen as a national model because it's community based, well resourced, and innovative. It features group education on the court system, one-on-one mental health counseling and support where needed, and mock trials.

The D.C. program's involvement in the initiative enabled it to continue to improve by getting help from senior statisticians to better understand which components of its program led to faster restoration, to tweak those aspects, and to publish results accordingly, said Saint Elizabeths' Candilis. The GAINS Center Learning Collaboratives program also fostered stakeholder conversations that might not otherwise have taken place, he said.

"We get to talk to judges, forensic specialists, researchers, and policymakers at the same time," he said. "That's important because this is a community effort and a community problem, which is why the Learning Collaboratives favor a multidisciplinary approach."

People with mental illness and who are experiencing homelessness are arrested more often for drug-related infractions. Restoration programs often do not provide the substance use treatment they need.

FINE-TUNED SOLUTIONS

Other experts are tackling problems in specific areas of the criminal justice and mental health systems. Many mental health professionals are guided by a tool called the Sequential Intercept Model, often referred to as SIM, which identifies discrete points along the continuum of criminal-case processing that can serve as opportunities to divert people with serious mental illness into treatment. In a paper in *Psychiatric Services* (online first publication, 2020), Pinals and Callahan adapted the model

EDUCATION

TOWARD MORE SENSIBLE CASE DECISIONS

People found incompetent to stand trial (IST) range from those who commit minor, nonviolent offenses such as loitering or trespassing to individuals who commit serious crimes such as assault and murder. While it's difficult to put exact numbers on IST cases at either extreme, research suggests that IST cases involving minor infractions are on the rise. In a statewide sample of 1,126 Virginia defendants referred for competency evaluations, for example, defendants who faced only misdemeanor charges were much more likely than those facing felony charges to be found IST (44% versus 31.2%), according to research by University of Virginia forensic psychologist Daniel Murrie, PhD, and colleagues (*Psychology, Public Policy, and Law*, Vol. 28, No. 1, 2022).

Despite the vast differences in the severity of these cases, however, at this point most people deemed IST must undergo competency restoration to learn enough about the system to understand their charges and communicate with their attorneys accordingly. But there is wide variability in where people go to get restored and for how long, depending on resources, how savvy local court systems are, and other factors. In some of the more progressive examples, Florida and New York have developed systems where only IST patients with felony charges are admitted to state hospitals for competency restoration and those with minor charges are sent to community restoration programs that also include mental health services. California has gone even further by no longer admitting any IST individuals to state hospitals, including those with felony charges, instead sending them to county-based diversion programs. However, states with fewer resources sometimes use jails as places to restore competency due to long wait lists for state hospitals and a lack of community options. Still other states lack competency restoration services entirely.

Besides a lack of good community alternatives, the often inappropriate placement of IST individuals is also related to the fact that judges aren't sufficiently educated on this issue and mental health evaluators aren't included in the decision of where to send people, said Lisa Callahan, PhD, a senior research associate at Policy Research Associates, a behavioral health research and technical assistance company, who has expertise in these cases.

"Anecdotally, I hear a lot from district attorneys and judges that they would support diversion to the community if they knew where the person would be sent and who would be supervising and treating them," she said. To this end, a number of states are launching efforts to educate judges on risk and needs assessment for these individuals, including developing standardized orders that provide information to guide judges' decision-making processes.

Many advocates, including Callahan, also believe that the best long-term solution to the IST problem is to eliminate competency requirements for those with minor offenses altogether and route them into community care instead. Other wish list items include providing IST individuals with immediate connection to housing and treatment, standardizing state clinical and judicial orders and communications so that people are sent to care based on need and not on the whims of a given locale, and mandating organized data collection and analysis to provide real-time information to improve the system.

to specific points in the competency system where this could happen, from crisis services that could help avoid arrest in the first place to diversion strategies that take place at various times, starting with the moment a person appears in court. Ways to help realize these strategies include easing access to community services, training forensic evaluators on alternatives to inpatient restoration, expanding on community-based restoration efforts, and improving the conditions of confinement.

In a line of work related to the model, Kois and University of Alabama colleague Jennifer Cox, PhD, are addressing the first intervention point—avoiding arrest in the first place—through studies aimed at optimizing the use of the 988 mental health emergency line, due for national operation this summer. The call line is intended

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FURTHER READING

A survey of national trends in psychiatric patients found incompetent to stand trial: Reasons for the reinstitutionalization of people with serious mental illness in the United States
Warburton, K., et al.
CNS Spectrum, 2020

The impact of misdemeanor arrests on forensic mental health services: A state-wide review of Virginia competence to stand trial evaluations
Murrie, D. C., et al.
Psychology, Public Policy, and Law, 2022

Evaluation and restoration of competence to stand trial: Intercepting the forensic system using the Sequential Intercept Model
Pinals, D. A., & Callahan L.
Psychiatric Services, 2020

Resolution or resignation: The role of forensic mental health professionals amidst the competency services crisis
Gowensmith, W. N.
Psychology, Public Policy, and Law, 2019

to reduce arrests of people with serious mental illness and connect them to care instead. The University of Alabama's Southern Behavioral Health and Law Initiative is interviewing a variety of stakeholders—people with serious mental illness, police officers, and first responders—to determine what needs to happen to ensure that the calls are effective in helping to properly divert people. Considerations include proper training of law enforcement in mental health issues and advertising the call line in ways that will promote the number's use in communities that might be wary of such interventions, Kois said.

Kois's team is also adapting "Michael's Game"—an evidence-based cognitive behavioral intervention for people with psychotic disorders—to the competency process. The intervention uses a card game format to address delusional thinking through a stepped reasoning process. Kois's adapted version, which she calls "Stephen's Game," applies these same strategies but uses examples that address delusional or paranoid beliefs related to the legal process, for example, the belief that a person's defense attorney or judge is working against them. The aim of the intervention is to increase the therapeutic component of competency restoration, which often gets short shrift, Kois said. "It's a double whammy of getting the reality testing that many need anyway and learning about how a legal case works."

As these efforts unfold, it is important that psychologists play a central role, Gowensmith said. With their expertise in research, assessment, and practice related to competency evaluations, psychologists are well equipped to understand what people in the competency system need and to work with the system accordingly. Ways to get involved include advocacy, designing services, and grant writing, he said.

It's also important to remember that while most of the people in the competency system are dealing with serious mental health problems and legal troubles, they deserve help, Gowensmith added. "They're still our brothers and sisters," he said. "They have the same needs, the same hopes, the same dreams as anyone without a forensic commitment, and we have a responsibility to them." ■

PEOPLEIMAGES, ISTOCK/GETTY

Specific cognitive behavioral interventions can help restore competency.

Unraveling the Mystery of Lyme Disease

Research shows the oft-misdiagnosed tick-borne disease can lead to serious mental health problems that can erode a person's quality of life, especially if left untreated. Psychologists are among those working to improve care for these patients.

BY CHARLOTTE HUFF

Lyme disease can often be tricky to diagnose because some people never realize a tick has bitten them.

LEFT: LADISLAV KUBEŠ, OPPOSITE: AGSANDREW, ISTOCK/GETTY IMAGES PLUS

Some patients with Lyme disease experience "brain fog" that leads to impaired concentration, and a few develop auditory or visual hallucinations.

Long before

the SARS-CoV-2 virus was linked to a syndrome we now call long COVID, researchers and clinicians were already debating over how to best assist patients experiencing lingering symptoms from Lyme disease. For reasons that are unclear, 10% to 20% of people who contract Lyme disease report ongoing or intermittent symptoms at least a year after completing antibiotic treatment, including fatigue, muscle aches, difficulties with memory, irritability, and other symptoms, according to a review of the research (Marques, A., *Infectious Disease Clinics of North America*, Vol. 22, No. 2, 2008).

For patients, these ongoing and sometimes debilitating symptoms can erode their quality of life, potentially leading to depression, anxiety, and other mental health issues. But over the past few decades, researchers have also determined that the tick-borne infection itself, along with related inflammatory and other physiological effects, may directly cause mental health disorders.

One recent study, conducted by researchers from the Columbia University Irving Medical Center and the Copenhagen Research Centre for Mental Health, found that patients who received a hospital diagnosis of Lyme disease had a 28% higher rate of mental disorders and were twice as likely to have attempted suicide post-infection than individuals without a Lyme diagnosis (Fallon, B. A., *The American Journal of Psychiatry*, Vol. 178, No. 10, 2021).

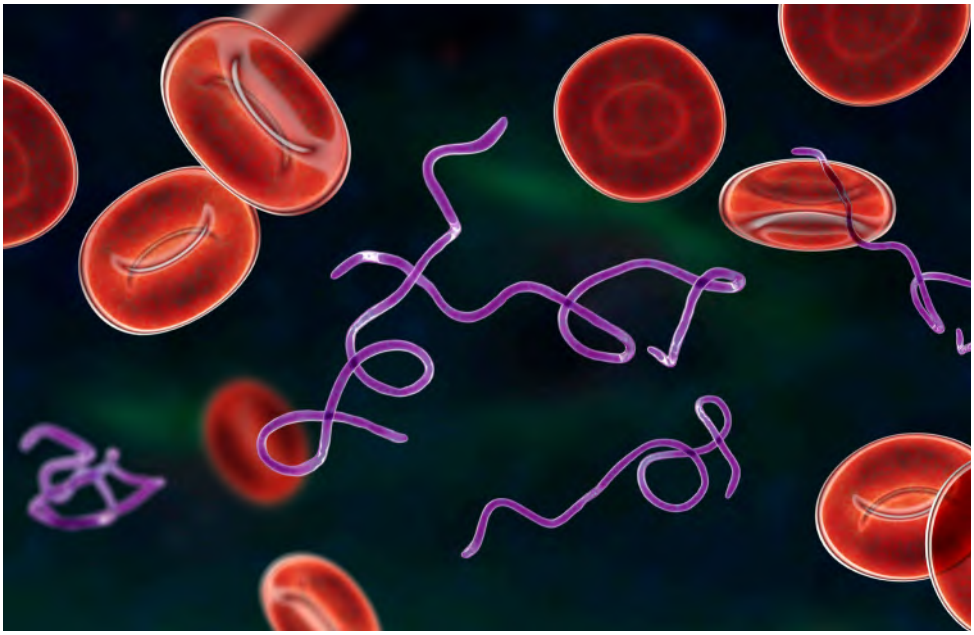
Patients diagnosed with Lyme report a range of mental health–related symptoms. Some experience panic attacks for the first time, which can sometimes extend for hours at a stretch, said Sheila M. Statlender, PhD, a clinical psychologist in Newton, Massachusetts, who has been working with patients with Lyme disease for more than 15 years. Some report frustrations with "brain fog," cognitive difficulties that can include impaired concentration or trouble with tracking words on a page. In rarer instances, they develop auditory hallucinations. "They hear music, or they hear a radio that's not playing," she said.

In other circumstances, patients may arrive for therapy with a mental health diagnosis, such as anxiety or depression, unaware that a tick bite lies behind their symptoms, said Judith G. Leventhal, PhD, a clinical psychologist and neuropsychologist based in New York City.

Leventhal and Statlender are part of a small cadre of psychologists who now specialize in treating individuals who have been diagnosed with Lyme, a disease that remains as controversial as it is increasingly common. An estimated 476,000 cases were diagnosed each year from 2010 through 2018, according to a recent analysis of commercial insurance claims data (Kugeler, K. J., et al., *Emerging Infectious Diseases*, Vol. 27, No. 2, 2021). While the bulk of cases have been reported in the Northeast, mid-Atlantic, and upper Midwest regions of the United States, cases have been found throughout the country.

Lyme, which occurs when an infected tick transmits a bacterium called *Borrelia burgdorferi*, is one of various diseases spread by ticks. It's also a polarizing subject on multiple levels, from the lack of consistently reliable blood testing to an ongoing debate over how to treat or even describe patients who experience longer-term symptoms, including mental health symptoms (see sidebar on page 71). The patient community often uses the terminology of "chronic Lyme disease"; other terms include "posttreatment Lyme disease" and "posttreatment Lyme disease syndrome" (Sotsky, J., *Psychiatric Times*, Vol. 39, No. 1, 2022).

Despite the complexities involved in detecting and treating Lyme, New York City psychiatrist Brian Fallon, MD, MPH, director of the Lyme and Tick-Borne Diseases Research Center at Columbia University



The Lyme disease bacterium, *Borrelia burgdorferi*, is spread to people through the bite of an infected tick.

MONKEYBUSINESSIMAGES/GETTY IMAGES

Irving Medical Center and lead author on the Danish hospital study, credits mental health practitioners, including psychologists, with alerting physicians in the early days of Lyme disease diagnoses that something unusual was going on with these patients.

"They were often the ones who were saying, 'Look, I don't think this is just depression. I don't think this is just irritability,'" said Fallon, one of the first clinicians to link the tick-borne disease to neuropsychiatric symptoms. "'This patient is also having sound sensitivity and light sensitivity and complaining of numbness and tingling and cognitive problems. This doesn't make sense.'"

RULING OUT LYME

Symptoms of Lyme may include fever, chills, and muscle aches. At least 70% of adults and children will develop some type of skin irritation around the bite, including a rash called "erythema migrans" that's been described as having a bull's-eye appearance, according to the Centers for Disease Control and Prevention (CDC). Ideally, the patient is diagnosed shortly after the bite so antibiotics can be started. While early Lyme disease can be readily diagnosed during the first month if the typical erythema migrans rash is present, later stages with clinical symptoms require blood testing for antibodies to help clarify the diagnosis, Fallon said.

It is important to know that if the test is performed too soon after the infection, the antibodies may not have had time to fully develop. Most people recover after treatment, according to CDC officials.

But some people may never realize that a tick has bitten them, said Statlender, whose family dealt with the disease before she began to see patients with Lyme in her practice. (Her three children, who became ill in the 1990s and have since recovered, weren't diagnosed for at least several years in part because they didn't notice the tick bites.) The rash can emerge in various forms, and it can be hidden along the hairline, Statlender said. Among people with darker skin, it may not be easily visible.

Depression, anxiety, or other mental symptoms may be among the first signs of infection, as happened with Lorraine Johnson, JD, MBA. The attorney, an avid hiker in Southern California, was diagnosed with major depression in the late 1990s after experiencing changes in mood and thinking, including concentration.

"If you are misdiagnosed with a psychiatric illness, you will be treated with psychotropic medications, and those are not without side effects," said Johnson, now the chief executive officer of LymeDisease.org, a nonprofit patient research, advocacy, and educational organization. "And they may lead you on a road to nowhere. That's basically what happened to me for about 5 years."

At some point, Johnson recognized that she had been misdiagnosed, "because none of the medications were working," she said. Once her Lyme disease was identified, she completed 2 years of aggressive medical treatment, including antibiotics, and her symptoms cleared, including her mood. She has not experienced any depressive episodes since. Along with heading up LymeDisease.org, she is also the principal investigator of their

patient registry, MyLymeData, which has collected and analyzed data from more than 16,000 patients.

The potential for misdiagnosis on the medical side makes it challenging for psychologists to pinpoint whether a patient's depression or anxiety could be caused by Lyme, Statlender said. Psychologists should look out for any sudden onset of symptoms, she said. An adult patient may experience panic attacks or anxiety for the first time, or a high-achieving student may begin to struggle in school.

Kristin Penza, PhD, a clinical psychologist in Norwell, Massachusetts, who conducts neuropsychological evaluations primarily of children and young adults, including those with Lyme disease, agreed that sudden onset is key, particularly if the patient has developed multiple mental health symptoms around the same time. For instance, an adolescent might describe new occurrences of severe anxiety at night, insomnia, and difficulty in concentrating at school. As part of the evaluation, Penza will also ask if they have experienced any physical symptoms.

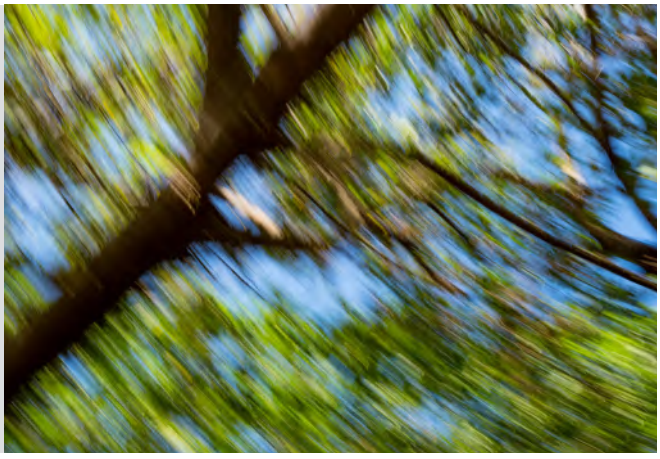
In another scenario, a student may be sent to therapy for a seeming behavioral issue that is actually rooted in Lyme-related sensitivities, such as to the fluorescent lights or to the noise of crowded school hallways, Penza said.

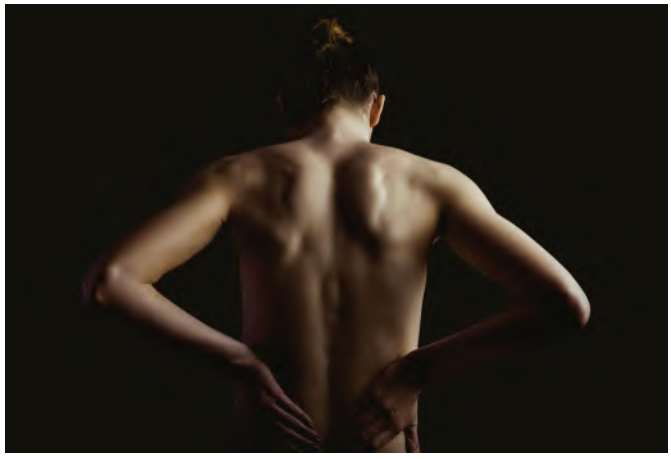
"They feel overwhelmed," she said. "They can't even get into the school, or they sit on the stairwell. And they're seen as defiant. But really, they're on sensory overload and they just can't handle walking into that building or walking into that classroom."

In regions where tick-borne diseases are common, psychologists should refer any patient they are concerned about to a physician for testing to rule out that possibility, Leventhal said. "Because they are treatable," she said. "You can't ignore the fact that microbes cause many different neuropsychiatric symptoms. Certainly, Lyme disease and other tick-borne diseases are prominent on that list."

A tick-borne infection should also be considered if a patient does not respond to treatment efforts, including medication, Leventhal said. Medications such as antidepressants or anti-anxiety medications by themselves may not relieve or reduce someone's symptoms because they may be driven by an underlying infection-induced encephalopathy, she said. Thus, psychiatric symptoms need to be seen within the context of neurocognitive impairments to assess the presence of an encephalopathy. To that end, a neuropsychological evaluation is an important diagnostic tool that can provide key information for treatment decisions.

Another potential red flag is if a patient's symptoms change while they are taking antibiotics for another medical reason, such as to treat an infection, according to a screening tool that Statlender has created for mental health professionals. That's because some patients can develop what is called a Jarisch-Herxheimer (J-H) reaction, in which, paradoxically, their physical or neuropsychiatric symptoms may





Wooded areas are often dense with ticks. Fatigue, irritability, and muscle aches are among the lingering symptoms of Lyme.

LEFT: CARLOS HUANG, SHUTTERSTOCK. RIGHT: WAVEBREAK MEDIA LTD., SHUTTERSTOCK

temporarily worsen during initial antibiotic treatment, a phenomenon thought to be due to the die-off of the disease-causing bacteria, and a sign that the treatment is working.

LYME-DRIVEN ANXIETY

In the early 1990s, Fallon, whose expertise includes hypochondria, started getting referrals of patients who had been told that they had that psychosomatic disorder. But, because these patients didn't have any history of illness anxiety, Fallon began to believe they had contracted Lyme disease. Plus, they reported the sudden onset of fatigue, joint pain, cognitive difficulties, and other symptoms. Around the same time, he began to meet with families who had been impacted by Lyme in nearby Connecticut. They reported not having experienced anxiety, depression, and other mental health symptoms until after contracting the tick-borne illness.

Fallon and his wife, fellow psychiatrist Jenifer Nields, MD, of the Yale School of Medicine, laid out the case for a potential link between Lyme disease and later neuropsychiatric symptoms. They cited research, including case reports, showing that patients can subsequently develop major depression, anxiety, panic attacks, and numerous other symptoms, including auditory and visual hallucinations (*The American Journal of Psychiatry*, Vol. 151, No. 11, 1994).

More recently, Fallon teamed up with Danish researchers on the hospital study to take a more comprehensive look at to what degree Lyme disease boosts vulnerability to later mental health issues. The analysis, which the researchers described as the first large, population-based study to assess that relationship, also found that the likelihood of being diagnosed with any mental health disorder following a Lyme diagnosis—based on patient records from 1994 through 2016—was 28% higher overall and 42% higher for affective disorders, according to the 2021 study in the *The American Journal of Psychiatry*.

Those patients, Fallon noted, were ill enough to get a hospital-based diagnosis, whether that was during an outpatient visit or while being admitted. "This should not be seen as a study for run-of-the-mill Lyme rash," he said. "It really is a study on those patients who had severe enough symptoms that they had to go to the hospital."

The connection between a bacteria and mental health symptoms is not new, Fallon said, offering syphilis as one example. Both syphilis and Lyme are caused by a corkscrew-shaped bacterium called a spirochete.

Researchers are still unraveling the precise mechanisms involved, but there is clearly an inflammatory connection, Fallon said. "It's definitely very well accepted to say that any infection that can cause an encephalitis, which means inflammation in the brain, can cause psychiatric disorders," he said. "Any infection can do that, and *Borrelia* can do it as well."

Fallon and others who treat these patients note that their mental health symptoms can manifest in ways that may differ from individuals who haven't contracted Lyme. Joseph Trunzo, PhD, a professor and chair of psychology at Bryant University in Rhode Island who works with patients who have anxiety disorders, said one notable hallmark is the duration and acuity of the anxiety without any seeming underlying triggers.

"In Lyme-driven anxiety, people will often feel this really intense, prolonged, almost nonstop, very high anxiety," he said. "It might not be a full-blown panic attack, but it's pretty high to the point where it's extremely uncomfortable and very distracting and makes it difficult for them to function."

As psychologists take a

CONTROVERSY

SPLIT OVER TREATMENT FOR PERSISTENT SYMPTOMS

Medical groups continue to disagree about the optimal approach if a patient's symptoms persist after the initial antibiotic treatment. A recent Lyme disease overview summarizes the differing guidelines (Sotsky, J., *Psychiatric Times*, Vol. 39, No. 1, 2022).

- When patients have persistent or recurrent symptoms following recommended antibiotic treatment but no evidence of reinfection, further treatment is not recommended (2020 joint guidelines from Infectious Diseases Society of America, American Academy of Neurology, and the American College of Rheumatology).
- While other potential causes for persistent symptoms should be investigated first, additional antibiotics are recommended if a chronic Lyme infection is believed to be a possible cause for ongoing symptoms and the patient has an impaired quality of life (International Lyme and Associated Diseases Society).

patient history, it is important to ask about any sensitivities, such as to light or sound, that can be associated with Lyme, Trunzo said. Patients will often volunteer those sensitivities, as they can be quite distressing, he said. A person may not be able to leave their home, for instance, without wearing sunglasses to protect their eyes from strong light. "It really feeds into isolation," he said. Moreover, these individuals may exhibit an elevated degree of impulsivity and emotional lability related to their encephalopathy. This can be directed toward others or themselves and in some cases may increase their risk of suicide, he said. The disruption to their lives, which may include the loss of a job or a falling-out with friends, may heighten their vulnerability as well, he said.

"A lot of times, people don't really know what's going on. They've been feeling really ill and very sick—oftentimes for a very long time—and they haven't been able to get any help or any relief," Trunzo said. "It puts people in a very desperate situation and very desperate straits."

Pegah Touradji, PhD, a neuropsychologist and assistant professor of physical medicine and rehabilitation at Johns Hopkins University who works with adults with posttreatment Lyme disease, agreed that adjusting to chronic illness can inflict mental health strain. As people dial back their daily activities to limit pain and fatigue, these life changes can be upsetting, said Touradji. "For some people, the reaction to that stress can manifest in mood symptoms," she said.

Patients report hiding their diagnosis at work, as well as from all but a tight circle of family and friends, fearing stigma and thus boosting their sense of isolation, said Johnson. They may not feel supported even by their own physician, she said.

"Being gaslit by a medical professional is really painful for patients," she said. "It's the same thing as being dismissed, or your reality being denied."

TAILORING THERAPY

Initially, patients struggling with symptoms of a tick-borne disease may need a lot of information about these diseases, as well as validation of their experience, Leventhal said. She described a teenager who was being treated for a tick-borne infection and was experiencing intrusive thoughts. Reassurance that her brain was playing tricks on her was a helpful concept for her.

Patients may be coping with a high degree of demoralization, given their frustrations with the medical establishment, which psychologists must address up front, said John Keilp, PhD, a Lyme researcher and consulting neuropsychologist who works with Fallon at Columbia's Lyme and Tick-Borne Diseases Research Center. It's crucial that psychologists read up on Lyme and the related controversies through the years, including related to diagnosis, he said.

"Do a little homework to get a sense of what the historical backdrop has been over the last 20 or 30 years," he suggested, "because that will give you a better feel for what the patients have gone through in terms of their frustrations with the medical establishment or with the people they've gone to see."

To assist mental health practitioners, Trunzo recently teamed up with Leventhal, Statlender, and several other colleagues to write a detailed primer about the diagnosis and treatment of tick-borne diseases, which also includes Statlender's screening tool (*Practice Innovations*, online first publication, 2022). Trunzo, who considers himself a proponent of cognitive behavioral therapy (CBT), has discovered over time that CBT's homework-intensive approach, which may include keeping a diary or daily log, can overwhelm those coping with brain fog, extreme fatigue, and other moment-to-moment challenges.

Identifying and helping to change dysfunctional and distorted thought processes, another aspect of CBT, does not make as much sense with these patients either, Trunzo noted. "A lot of the thoughts that people have around Lyme disease are not necessarily distorted, right? 'I lost my job. I'm really sick. I can't do any of the things that I used to be able to do.'"

Instead, Trunzo has had some success incorporating acceptance and commitment therapy (ACT), which he described as less reliant on restructuring one's thought patterns and more on adapting to current reality. There have been no evidence-based studies yet conducted in patients with Lyme, but other research has shown the approach to be effective in those with other chronic illnesses, he said.

Under the ACT approach,

FURTHER READING

Post-treatment Lyme disease as a model for persistent symptoms in Lyme disease
Rebman, A. W., & Aucott, J. N. *Frontiers in Medicine*, 2020

Conquering Lyme disease: Science bridges the great divide
Fallon, B., & Sotsky, J. Columbia University Press, 2019

Living beyond Lyme: Reclaim your life from Lyme disease and chronic illness
Trunzo, J. J. Changemakers Books, 2018

Neurocognition in post-treatment Lyme disease and major depressive disorder
Keilp, J. G., et al. *Archives of Clinical Neuropsychology*, 2019

EZEQUIEL GIMENEZ/AP

Patients with Lyme can also experience sensitivity to light and noise or a feeling of sensory overload.

a patient will still identify and notice the thoughts that they're wrestling with, Trunzo said. But the therapy focuses more on learning to coexist with or accept those thoughts so that they don't divert individuals from living in the moment.

With ACT, patients can also begin to think about their values as they reframe their lives moving forward, Touradji said. They may not be able to return to their job, but they can consider what it is they value about the work and incorporate that into their life. Someone who was a nurse in a pediatric clinic and wants to continue helping people could instead volunteer at an elementary school, she said.

"YOU MAY VERY WELL BE THE ONLY PERSON WHO IS LISTENING TO THEM."

JOSEPH TRUNZO, PHD, BRYANT UNIVERSITY

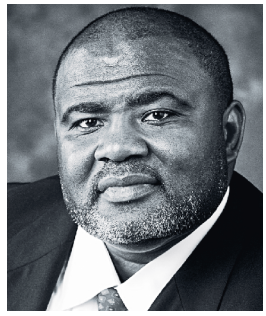
A common theme emerges from Touradji, Trunzo, and other psychologists: Assisting and caring for patients with Lyme disease requires an open mind, flexibility in thinking, and a willingness to try a mix of therapeutic approaches.

"There is no question, it is a very, very challenging population to work with," Trunzo said. "It also can be very rewarding. You can have an immeasurably profound impact on someone's life by doing this work. Because you may very well be the only person who is listening to them." ■


Sumner


Bevans


Turner


Sellers


Buckner

PSYCHOLOGISTS IN THE NEWS

The American Psychosomatic Society has presented its Herbert Weiner Early Career Award to **Jennifer Sumner, PhD,** an assistant professor of psychology at the University of California, Los Angeles. The Weiner award recognizes promising early career researchers who have contributed significantly to the field of psychosomatic medicine. Sumner's research focuses on how stress and trauma contribute to accelerated aging and risk for chronic disease.

The Nevada System of Higher Education has presented a Regents Teaching Award to psychology professor **Rebecca Bevans, PhD,** for her hard work and dedication to her students and teaching at Western Nevada College (WNC) in Carson City. Among her accomplishments, Bevans improved enrollment among homeschooled students transitioning to college through her work as the homeschool coordinator for the WNC system.

The National Association of School Psychologists has named **April Turner, PhD, NCSP,** the 2022 School Psychologist of the Year. Turner is the school psychological services supervisor at the Maryland State Department of Education in Baltimore. She previously served as a school psychologist in the Baltimore City Public Schools for 9 years. Turner has improved service delivery through data-based decision-making, fostering family engagement, building school psychologists' leadership skills, and addressing the impacts of trauma and racial inequities on students and staff. She was also instrumental in organizing a support group for school psychologists of color.

President Biden has appointed University of Michigan psychologist **Robert Sellers, PhD,** to serve on the President's Committee on the National Medal of Science. The committee evaluates nominees for the Medal of Science, which recognizes outstanding scholars in the physical, biological, mathematical, engineering, social, and behavioral sciences. Sellers is the vice provost for equity and inclusion and the chief diversity officer at the University of Michigan.

Louisiana State University (LSU) has presented **Julia Buckner, PhD,** with a Rainmaker Award. The award recognizes faculty who excel in their teaching and research responsibilities while applying their work to the world beyond academia. Buckner is a psychology professor and director of LSU's Anxiety and Addictive Behaviors Laboratory and Clinic. She is also a clinical supervisor at LSU's Psychological Services Center and Our Lady of the Lake Regional Medical Center in Baton Rouge, Louisiana.

The National Academy of Education has elected three new psychologists to its membership. The new members are **Okhee Lee, PhD,** of New York University, **Gale Sinatra, PhD,** of the University of Southern California, and **Matthias von Davier, PhD,** the executive director of the TIMSS & PIRLS International Study Center at Boston College. Members are selected for outstanding scholarship related to education.

The U.S. Navy has named **Lt. Neal McNeal, PhD,** the 2021 Medical Service Corps Research Psychology Officer of the Year. McNeal is a research psychologist at the Naval Submarine Medical Research Laboratory (NSMRL) in Groton, Connecticut. The honor recognizes his work and research at the Naval Medical Research Unit–San Antonio (NAMRU–SA), where he studied long-term care for injured service members and pain management. At NSMRL, McNeal is exploring mental health stigma and how physical and psychological factors combine to influence well-being and people's ability to cope with stress. ■

News You Can Use

Career

NEW IDEAS FOR PSYCHOLOGISTS WHO WANT TO ENHANCE THEIR SKILLS AND ADVANCE THEIR CAREERS

JAMES DUNCAN DAVIDSON/TED

Mechanical engineer Dr. Ainissa Ramirez delivers a TED Talk on the importance of science education.

THE MAKINGS OF A MEMORABLE RESEARCH TALK

Thoughtful preparation can open career doors and change minds

BY HEATHER STRINGER

When New York University psychologist Wendy Suzuki, PhD, was invited to give a talk about her research to thousands of business leaders in Moscow's Olympic Stadium in 2018, she was nervous about speaking after renowned actor Richard Gere and award-winning author Malcolm Gladwell. Even though she had given the talk dozens of times, she was flooded with fear as she waited backstage and anticipated the planned fireworks that would light up the sky as she entered. Suzuki was determined to give a talk worthy of those fireworks and leaned on her extensive preparation for confidence as she walked to the podium.

"Exercise is the most transformative thing you can do to your brain today," she said to open her presentation. The audience erupted in applause—something that had never happened at the outset of one of her talks. Suzuki, a professor

of neural science, shared with her listeners that she began exploring the neuroscience of exercise after she gained 25 pounds and went to the gym to lose weight. The regular workouts started improving her cognitive function. Later in the talk, she invited the audience to experience the neurochemical changes for themselves by standing up to participate in two minutes of intenSati—a workout that combines cardiovascular exercise with positive verbal affirmations.

Although the talk may have seemed almost effortless to the audience, Suzuki was leveraging strategies she has honed for years to create presentations that are compelling and memorable. "Making the topic personal is very important," said Suzuki, who has shared her research at psychology and medical conferences, on network TV, and in TED Talks. "If you can't convey the relevance of the research to the audience, then you have already lost them."

Successful speakers agree that an exceptional talk has the potential to change the minds of listeners and motivate them to operate differently in the world, which is one of the most thrilling experiences a researcher can have. Yet it is difficult to give a talk of this caliber, acknowledged Don Moore, PhD, a psychologist in the Haas School of Business at the University of California, Berkeley.

"Presenters have to balance many goals that are in conflict," Moore said. They have a deep desire to honor the scientific process, but they are expected to be fun and entertaining; they are eager to share the details of their studies, but it is critical to keep the message simple and clear. There may be a range of expertise in the audience about the material, and presenters must keep everyone engaged, explained Moore.

Research suggests that MRI data can reveal when presenters are successfully conveying their discoveries to listeners. In a recent study, effective communication of complex information in classroom settings was correlated with similarities in neural responses between teachers and students. The more closely a student's brain activity mirrored their teacher's brain activity, known as neural coupling, the better the student's learning score on a multiple-choice quiz (Nguyen, M., et al., *Social Cognitive and Affective Neuroscience*, Vol. 17, No. 4, 2022).

Learning to create captivating and influential talks is not easy, but the rewards of developing this skill are numerous, including invitations to speak at esteemed conferences and meetings, promotions, better odds when applying for grants, and relationships with new collaborators, said Susan McConnell, PhD, a biology professor at Stanford University who coaches graduate students, biotech company employees, and faculty in how to design effective presentations. According to those who have experienced these rewards, the best talks often use similar strategies to capture—and keep—an audience's attention. Here are a few tips from seasoned experts.

SIMONKR/GETTY IMAGES

Learning to deliver captivating talks can lead to invitations to speak at global conferences and improve your odds when applying for grants.

SIMPLICITY IS BLISS

It is wise to suppress the impulse to impress the audience by sharing complexities of data and findings, said psychologist Barry Schwartz, PhD, a professor emeritus at Swarthmore College in Pennsylvania and a visiting professor at the Haas School of Business. Schwartz learned this lesson early in his career when he was invited to speak to a group of professors known for humbling junior faculty who were giving talks. Before giving his presentation, he asked a colleague for advice, and she encouraged him to keep it simple.

"She explained that this would allow the people who already knew my work to feel proud that they could explain it to others, and the novices would feel proud because they understood it," he said. "It worked exactly as she had predicted, and simplicity has been my go-to strategy ever since." Schwartz wants his audience to feel intelligent rather than to highlight his own prowess, so he focuses on one or two main points with many examples supporting those points. He tells listeners that he has made progress on the problem at hand, but more help is needed by other researchers. "This can invite others to use their research tools to help address the problem," he said.

The best talks also often include slides with graphs, images, video clips, or other illustrations that reinforce the main point, rather than slides with tables and numerous bullet points, said Moore. In his talks about overconfidence, for example, Moore has included a video clip of a bicyclist falling while trying a difficult new trick. In a study with complex lab interventions, a photo or short video clip of participants solving a puzzle can be vivid and memorable, he said.

KEEP THE AUDIENCE THINKING

When Tom Gilovich, PhD, a psychology professor at Cornell University, talks about his research on counterfactual thinking, he shows graphs revealing that silver medalists tend to be less happy than the bronze medalists they have outperformed. Then he invites the audience to speculate about why this is the case.

"They are puzzling along with me to understand this unexpected finding, and the peak of the presentation is the resolution," said Gilovich. He explains that it all comes down to comparison: Silver medalists are disappointed about being one step away from winning gold, while bronze medalists are pleased to be one step away from not winning a medal at all.

Like Gilovich, Princeton University's Tom Griffiths, PhD, a psychology professor who gives talks about computational models and mathematical concepts, helps audiences stay engaged with technical content by asking questions that allow the listeners to start thinking on their own. "I'm not telling them about the things I have thought a lot about," he said. "I want a more cooperative experience where we are thinking together."

In his presentations on Bayesian models of human cognition, he asks people to predict how much money they thought a movie would make if they heard on the radio that it had made $10 million so far. Then he asks them to imagine meeting a 10-year-old boy and predict how long he would live. Most people guess that the

LESSONS LEARNED FROM YOUTUBERS

Although most researchers prefer giving talks in person, they acknowledge that online presentations are likely to continue for the near future. Given this reality, Todd Gureckis, PhD, a psychology professor at New York University, turned to YouTube to improve his online presentation skills. Early in the pandemic, Gureckis started watching YouTube videos to learn how to build a deck for his home, and he noticed that the videos were often more clear, energetic, and engaging than most online academic lectures.

"The YouTubers are trying to keep people watching while providing value in an environment where many distractions are competing for a viewer's attention," he said. He watched more than 1,000 videos, and here are a few of the insights he gleaned:

- **Share where you are:** In the beginning, invite viewers to your location by showing photos or video clips of your university or city. This establishes a connection to your surroundings.
- **Be a talking head:** People enjoy seeing faces and expressions, so feature yourself on the screen rather than minimizing your profile.
- **Amp it up:** Expressions and volume are muted online, so increase your level of energy and animation to keep your audience's attention.
- **Sound matters:** People often neglect the value of high-quality audio because video seems more important. Buy a good microphone.
- **Mix it up:** Avoid sitting in front of the camera for the entire talk. Try picking up the camera and moving it to a new location once or twice during the presentation.

movie would make a multiple of $10 million and that the boy would live many decades longer. Then he explains how their answers reveal that human cognition follows a statistical formula called Bayes theorem: They use prior knowledge to predict probability. "Whenever I talk about something technical, I spend an equivalent amount of time surrounding it in something concrete that people can relate to," Griffiths said.

THE MAGIC OF NARRATIVE

Crafting a research talk that tells a story is another vital tool, said McConnell. "Researchers are usually uncomfortable with leaving things out or diverging from the sequence followed in a scientific paper, but it's important to break the assumption that your talk is like your paper," she said. "It can be liberating to play with the order." She teaches researchers that there are two ways to tell a story: One method describes the exciting discovery at the outset and then justifies the evidence; the other creates a mystery that ends with the finding.

Unexpected results can become the most compelling elements of the story, said Hopi Hoekstra, PhD, a professor in the Department of Organismic and Evolutionary Biology at Harvard University. "You are holding the hands of audience members and taking them on a scientific journey," she said. "Too often I hear talks with shiny results without any insights into the scientific process or hints that some experiments didn't work."

MRI studies of the brain are shedding light on why storytelling is such a powerful method of engaging audiences. Princeton University's Uri Hasson, PhD, has recorded the brain activity of people telling stories to other people and found evidence of extensive neural coupling. The brains of both the speakers and listeners showed patterns of activity in the same areas (*The Journal of Neuroscience*, Vol. 31. No. 8, 2011).

Ainissa Ramirez, PhD, a former associate professor of mechanical engineering at Yale University, has perfected the art of telling scientific stories that engage the public. She developed a program called Science Saturdays at Yale to expose middle school students and

COURTESY OF WENDY SUZUKI

Dr. Wendy Suzuki is known for her engaging talks on brain plasticity and how exercise can improve learning and memory.

LAFLOR/GETTY IMAGES

Using gestures and projecting your voice help to maintain the audience's attention.

their families to interesting new research and other discoveries. This experience, along with many others like it, motivated her to leave academia to pursue her passion for increasing excitement about science among the public.

"With this type of audience, you have to work hard to keep their attention because they have other things they can focus on, like social media," said Ramirez, who works independently as an author and speaker and has been featured on CBS, CNN, NPR, and PBS. "Rather than telling listeners that I have something to teach, I ask a question: 'Did you know the telegraph shaped language? Did you know that artificial light modified our health?'"

Describing characters in the scientific journey is another critical element of storytelling, she said. When talking to audiences about her new book, *The Alchemy of Us* (MIT Press, 2021), which explores how eight inventions shaped the human experience, she personalizes inventors by describing idiosyncrasies, tragedies, and mistakes that were part of their journeys.

STAGE PRESENCE

Researchers giving talks can also learn from the techniques actors use onstage, said psychologist Alison Gopnik, PhD, who studies cognitive development at the University of California, Berkeley. Gopnik performed in plays throughout her childhood and during college, and she has transferred skills learned there, such as projecting her voice, using gestures, and moving around, to maintain an audience's attention as a presenter. Good lighting on the speaker is also important, she said, and she discourages presenters from dimming the lights to help listeners focus on slides.

Successful speakers also agree that rehearsing is a critical element of the preparation process. "I don't think anyone is a natural," said Griffiths. "It takes a lot of practice." He started feeling more comfortable giving presentations once he began teaching regularly. "I would spend 10 hours preparing for 1 hour of lecture, and that built up my speaking muscles," he said. Practice with colleagues to identify the awkward moments and to perfect the timing, he said. And don't be afraid to record yourself to catch any distracting habits you may be unaware of when speaking, added McConnell.

Another golden rule for speakers is to know the audience, said Hoekstra. The most embarrassing stories of talks gone awry often relate to situations when presenters were not prepared for a specific group of listeners. Hoekstra is haunted by a lecture she gave about the genetics of behavior to a public audience. "I lost them in the beginning because I didn't set up the big question of why this was important," she said. "I was talking about findings in mice, but I didn't show how the findings were important for human behavior." Only one person asked a question after the talk, and then it was quiet. "I still wake up in the night and get a knot in the pit of my stomach when I think about this talk."

Hoekstra's invitation for questions is usually met with a host of raised hands in the audience—people who are eager to clarify their understanding or raise important considerations. These moments are in fact vital interactions that lead to the advancement of science and new ideas, Hoekstra said. "The questions may help me organize my thoughts for a paper or spark a new set of experiments," she said. "It's a time when we can share our excitement about science." ■

FURTHER READING

How to tell a compelling story in scientific presentations
Kirchoff, B.
Nature, 2021

YouTube your science
Smith, A. A.
Nature, 2018

Designing science presentations: A visual guide to figures, papers, slides, posters, and more (2nd ed.)
Carter, M.
Elsevier, 2020

PSYCHOLOGIST HOTLINE: PHONE CONSULTATIONS FOR PEDIATRICIANS

Psychologists are helping pediatricians diagnose and manage patients' mental health problems

BY REBECCA A. CLAY

URBAZON/GETTY IMAGES

The U.S. federal government now funds programs that allow pediatricians to consult with psychologists.

Children in the United States have a huge unmet need when it comes to mental health care, and pediatricians and other pediatric primary-care providers are often left to fill the gap. That can be a problem, said psychologist Dustin Sarver, PhD, of the University of Mississippi School of Medicine, noting that such providers aren't always comfortable diagnosing and treating mental health conditions.

"About 1 in 5 kids will have a clinically diagnosable mental health condition, but half of those kids will not receive care from a mental health provider," said Sarver, an associate professor of psychiatry and human behavior and pediatrics. "In rural places like Mississippi, about two thirds of the child population with an identified mental health condition are not connected to services."

Now, a Health Resources and Services Administration (HRSA) program is providing a path for psychologists and other mental health practitioners to help pediatric primary-care providers diagnose, treat, and refer children with mental and behavioral health problems.

Launched in 2018, the Pediatric Mental Health Care Access (PMHCA) program gives grants to states to support multidisciplinary teams of mental health providers who can help their pediatric primary-care colleagues. The services offered include phone consultations, training, technical assistance, and care coordination, all designed to get children the care they need.

SHARING PSYCHOLOGY'S EXPERTISE

Teleconsultation programs designed to help pediatric primary-care providers have a long history, said Erin Swedish, MBA, PhD, director of health integration in APA's Office of Health and Health Care Financing. But, she said, "these programs have historically focused on psychiatric consultation." In 2003, Massachusetts began a teleconsultation program that linked primary-care providers with child psychiatrists. By 2011, the concept had spread so widely that pediatricians and child psychiatrists created the National Network of Child Psychiatry Access Programs. HRSA's program is similar to earlier efforts, but its broadened focus is reflected in its name.

HRSA grantees build multidisciplinary mental health teams that go beyond psychiatry to include psychologists, social workers, and counselors. "Having psychologists being a part of these teams reinforces the importance of psychology in

integrated care," said Swedish. As of publication, there are Pediatric Mental Health Care Access grantees in 23 states plus the District of Columbia, with several more states in development.

Although there are variations state by state, the basic outline is the same everywhere. In Mississippi, for example, the program—known as Child Access to Mental Health and Psychiatry, or CHAMP—offers free, same-day phone consultations to the state's pediatric primary-care providers. Since receiving a HRSA grant in 2018, the program has registered a quarter of the state's pediatric primary-care providers in its database of participating providers and works hard to build relationships with them. "We want to make sure the providers know who we are and know they can trust us, that we're not just 1-800-Call-a-Psychologist," said Sarver, CHAMP's clinical director.

Three child psychologists and a psychiatrist from the University of Mississippi Medical Center field most of the calls, which are equally divided between psychiatric and behavioral health concerns. The team also includes a psychiatric nurse practitioner, a social worker, and a counselor. With calls typically lasting about 15 minutes, the psychologists tackle questions about diagnoses and treatment planning and occasionally co-consult with the psychiatrist. Meanwhile, the psychiatrist handles calls about medication management, and the social worker draws on a large database of providers across the state to suggest resources and referrals.

Integrated primary care, in which a psychologist embeds in a primary-care office, is a wonderful model, said Sarver. "But it's just not feasible in most communities across our state," he said. "Our phone-based consultation helps bridge that gap, enabling some level of coordinated, collaborative integrated care through consultation."

The Indiana Behavioral Health Access Program for Youth (Be Happy) at Indiana University's School of Medicine also provides telephone consultation to pediatricians and other pediatric primary-care providers in its home state. "Pediatricians and other primary-care providers are oftentimes the most trusted and most available providers for kids and families, but they may need some additional resources, training, and mentorship to provide the care these kids need," said psychologist Zachary Adams, PhD, Be Happy's co-director and an assistant professor of psychiatry at the medical school.

Although the program's primary constituency is pediatric primary-care providers, it is now expanding its reach to therapists. Starting in mid-2022, the Be Happy help line will also connect therapists in the community—whether in private practice, community mental health centers, or even integrated care settings—with Be Happy's psychologists for help with challenging cases. "Maybe they have a patient where things are a little more complicated than expected, or maybe they could use some help selecting an intervention or planning how to implement a particular kind of intervention a patient might need," said Adams. "Our consulting psychologists will be available to offer evidence-based

During a consultation, confirm parents' consent, gather the relevant information, and be ready to make a referral for further treatment.

SDI PRODUCTIONS/GETTY IMAGES

guidance and support."

In Maryland, an HRSA grant has allowed an existing access program called Maryland Behavioral Health Integration in Pediatric Primary Care (BHIPP) to extend its teleconsulting directly to patients who need care coordination, telepsychiatry, or telecounseling. "It's on a very short-term basis, more as a bridge to care in the community than taking over care," explained psychologist Amie Bettencourt, PhD, an assistant professor of psychiatry and behavioral sciences at the Johns Hopkins University School of Medicine.

Educating pediatric primary-care providers is another key component of the programs. BHIPP, for instance, brings primary-care providers together in monthly online training sessions that use the Project ECHO model, a peer support program for clinicians developed at the University of New Mexico that has an "all teach, all learn" philosophy. In each session, a primary-care provider presents a case involving mental health concerns, then receives feedback from other providers and the program's psychologists and other experts about what they should do next. A psychologist also helps write a monthly newsletter that goes out to pediatric primary-care providers around the state.

Although the psychologists involved in the Pediatric Mental Health Care Access programs are typically staff members at academic medical centers, there may be ways for other psychologists to get involved, said Bettencourt. Check to see if your state is on the list of HRSA grantees and then reach out to see if its program needs help implementing training for primary-care providers or part-time phone consultation. Build relationships with pediatric primary-care providers in your area and offer to provide the same kind of teleconsulting on a more local level. And urge your state to apply for HRSA funding.

Primary care providers in rural states rely on psychologists' expertise.

"Having psychologists involved in these access programs reinforces the role of psychology in integrated care," said Bettencourt. "It's really important for psychology to show how it can be a critical component of these programs."

APA is doing its part, too, Swedish added. To help ensure the financial sustainability of these programs, APA is trying to help advocate for psychologists' increased access to and utilization of CPT® consultation codes 99446, 99447, 99448, 99449, and 99451, which cover interprofessional consultation by phone, internet, or electronic health records.

"Billing these codes allows reimbursement for the non-face-to-face time by a psychologist for consultations when the patient is not present," explained Swedish. "Increasing psychologists' access to and utilization of these codes for consultant work that is not face-to-face would ensure that psychologists can be reimbursed, thus allowing for more financial stability for these programs."

BEST PRACTICES

Whether you are part of a Pediatric Mental Health Care Access program or just providing informal help to pediatric primary-care providers, use these tips for making the most of pediatric phone consultations:

INSTA_PHOTOS/GETTY IMAGES

■ **Confirm parents' consent.** Ask providers if they have parental consent to consult with you, even if the call is purely educational, said Sarver. "While you don't need written permission to consult with another provider, confirming they have consent is an opportunity to educate providers about the importance of family-driven practice," he said. "We want to make sure parents are involved, since that's the basis of family-driven practice—that parents have a say and a voice. We want to make sure it's done transparently."

■ **Be efficient.** "It's important to recognize that pediatric primary-care providers are very, very busy, especially when COVID-19 has flared up," said Sarver. Ask providers to clearly state their question and what information they need to take action to improve the mental health care of their patients.

■ **Gather all the relevant information.** A communications framework developed in Maryland's program helps ensure that psychologists and other teleconsultants share information effectively, said Bettencourt. Called the "Five S's," the framework covers assessing the patient's *safety*, identifying the *specific* behaviors the primary-care provider is concerned about, determining the *settings* in which those behaviors occur, noting *scary* issues like past trauma, and asking the provider about *screening* results (Harrison, J., et al., *Current Problems in Pediatric and Adolescent Health Care*, Vol. 46, No. 12, 2016).

■ **Stick to the evidence base.** Don't just wing it, said Adams. "Part of the idea here is that we're trying to promote the implementation of best practices and research-backed approaches to mental health care," he said. "Sometimes just starting with these well-established, tried-and-true procedures really addresses the question at hand."

■ **Give providers ideas for how to help children and families while they wait for specialty care.** For a primary-care provider treating a depressed adolescent, that might mean seeing the patient more frequently just to check in, said Bettencourt, noting that even that small form of social connection can help. The provider can also urge the patient to get busy doing something, whether it's taking walks or calling a friend, in the short term. Providing psychoeducation to the family to normalize the problem and explain what symptoms to expect and what treatment will look like can also help.

■ **Be ready with referrals.** "We get a fair number of calls about resources and referrals," said Sarver. The HRSA grantees maintain databases of providers in their states to help pediatric primary-care providers connect their patients to more specialized care if needed. And thanks to the loosening of telehealth regulations during the pandemic, Sarver added, access has increased. "We can now connect people in opposite ends of the state," he said. "A pediatric primary-care provider in the very rural, impoverished area of the Mississippi Delta may not have had access to mental health support, but with telehealth, we can match providers from other areas of the state to those underserved areas."

■ **Provide a takeaway that goes beyond the specific case the provider is asking about.** Educate providers about the standard of care on whatever topic they're calling about so they can apply it to the next patient who has a similar problem, said Sarver. "That increases the number of kids served," he said. One example: Recommend that providers use screening tools like the Patient Health Questionnaire-9 and the Vanderbilt ADHD Diagnostic Rating Scale to differentiate between depression and attention-deficit/hyperactivity disorder (ADHD), then ask them to call back for help in scoring and interpreting them.

■ **Remember you don't have to do everything in one call.** Provide "bite-sized morsels" of information, prioritizing actionable steps that will have the most immediate impact on patients' care, said Adams. "You don't want to give so much information that the provider is overwhelmed or more confused than they were before the call," he said. And urge providers to call back as needed and to view you as a colleague and a mentor. "We love it when we hear back from providers about what's working and not working," he said. ■

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BY TORI DEANGELIS

UNDERGRAD ENROLLMENT DROPPED DURING PANDEMIC

Though still lower than pre-pandemic, enrollment is creeping back up, and more students are choosing psychology as a major

3.1% Decrease in number of **undergraduate students** enrolling in all postsecondary institutions since fall 2019 and the beginning of the COVID-19 pandemic—a loss of 1,025,600 students. Enrollment fell **3.1%** in fall 2021 following a **3.5%** drop in fall 2020.

0.4% **Increase in freshman enrollment** across all postsecondary institutions from fall 2020 to fall 2021. This slight uptick follows a 9.5% decline between fall 2019 and fall 2020. Institutions gaining the most new freshmen in fall 2021 were **private 4-year institutions**—which saw a 2.9% increase since fall 2020—and **public 2-year colleges**—which saw a 0.4% gain since fall 2020.

2.5% Growth in **psychology majors** at 4-year colleges in fall 2021 compared with fall 2020. Computer science majors also grew (by 1.3%), but the five largest undergraduate majors—business, health, liberal arts, biology, and engineering—saw sharp declines, with liberal arts majors declining the most (-7.6%). Psychology is the seventh-largest undergraduate major.

Source: Fall 2021: Current term enrollment estimates. National Student Clearinghouse Research Center, Jan. 13, 2021. Available at https://nscresearchcenter.org/current-term-enrollment-estimates and at https://nscresearchcenter.org/wp-content/uploads/CTEE_Report_Fall_2021.pdf.

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If you are refinancing any federal student loans with Laurel Road, you will no longer be able to take advantage of any federal benefits, including but not limited to: COVID-19 payment relief, Income Based Repayment (IBR), Pay As You Earn (PAYE), or Revised Pay As You Earn (REPAYE), and Public Service Loan Forgiveness(PSLF). For more information about the benefits of these federal programs and other federal student loan programs, please visit https://studentaid.gov.

1. Savings vary based on rate and term of your existing and refinanced loan(s). Refinancing to a longer term may lower your monthly payments, but may also increase the total interest paid over the life of the loan. Refinancing to a shorter term may increase your monthly payments, but may lower the total interest paid over the life of the loan. Review your loan documentation for total cost of your refinanced loan.
2. The 0.25% American Psychological Association (APA) member interest rate discount is offered on new student loan refinance applications from active APA members. The APA discount is applied to your monthly payment and will be reflected in your billing statement. The discount will end if the APA notifies Laurel Road that the borrower is no longer a member. This offer cannot be combined with other member or employee discounts.

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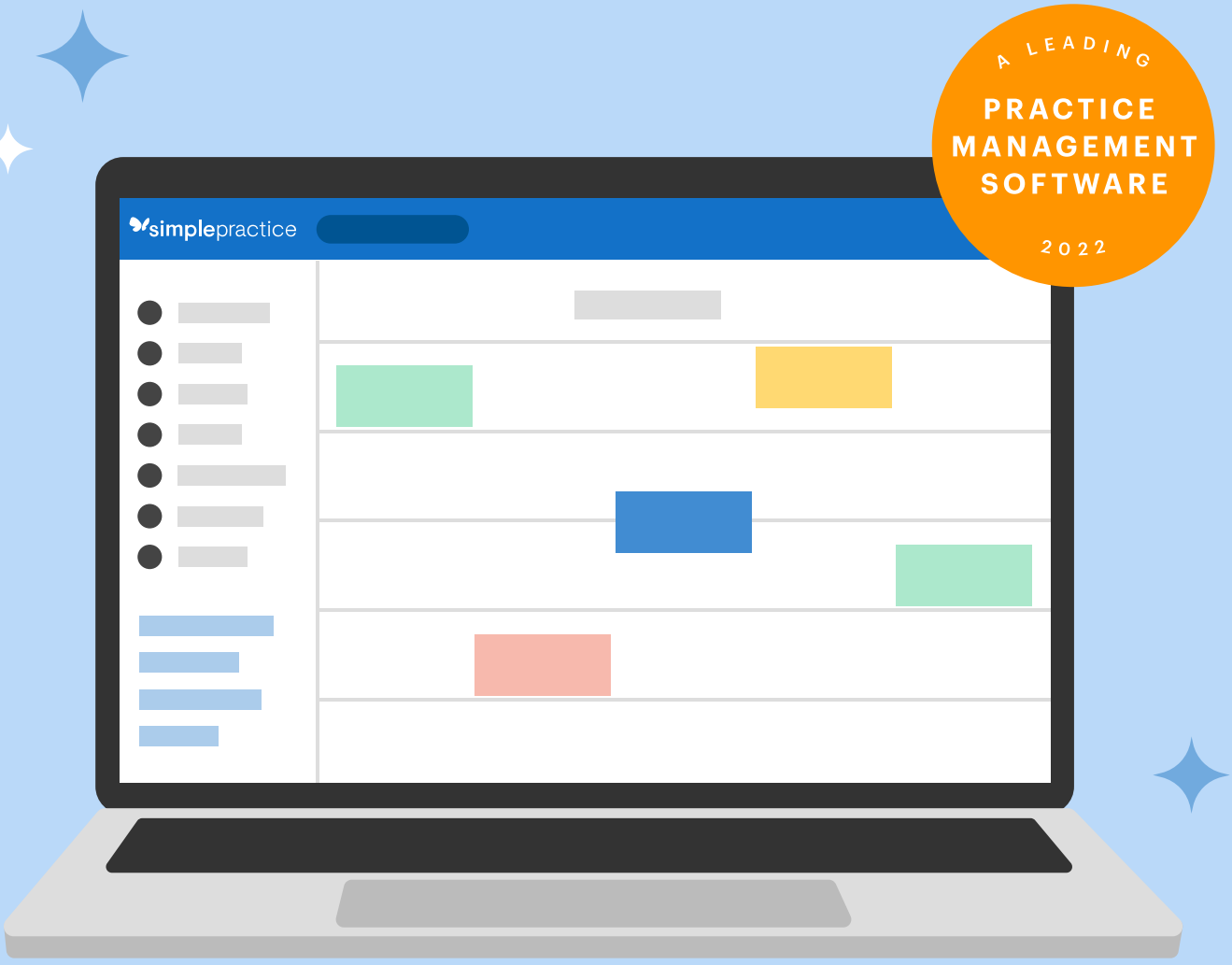

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