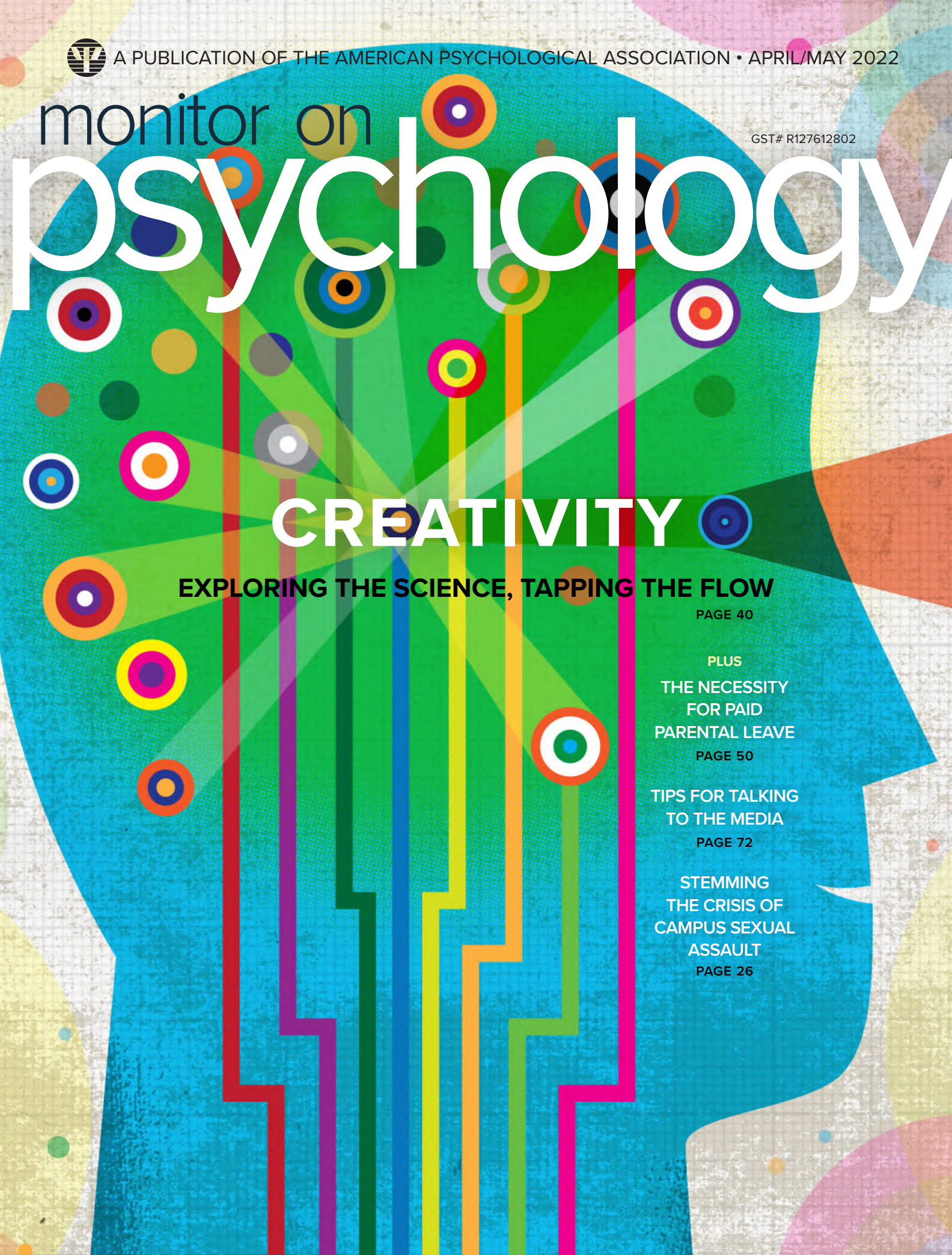
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monitor on psychology

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CREATIVITY

EXPLORING THE SCIENCE, TAPPING THE FLOW

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PLUS

THE NECESSITY FOR PAID PARENTAL LEAVE

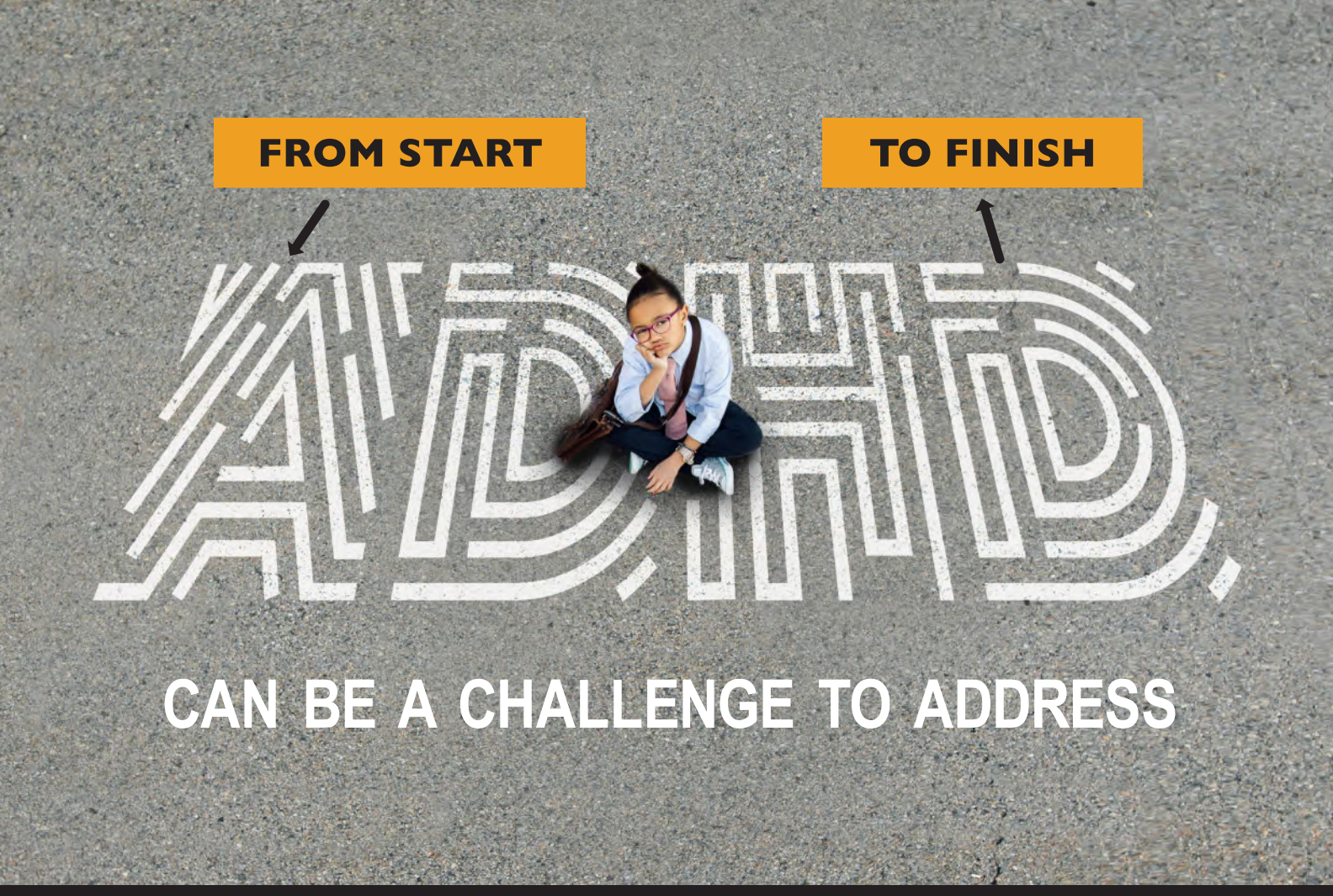
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STEMMING THE CRISIS OF CAMPUS SEXUAL ASSAULT

PAGE 26



The nature of ADHD, its symptomology and overlapping comorbidities can make its assessment a significant task.

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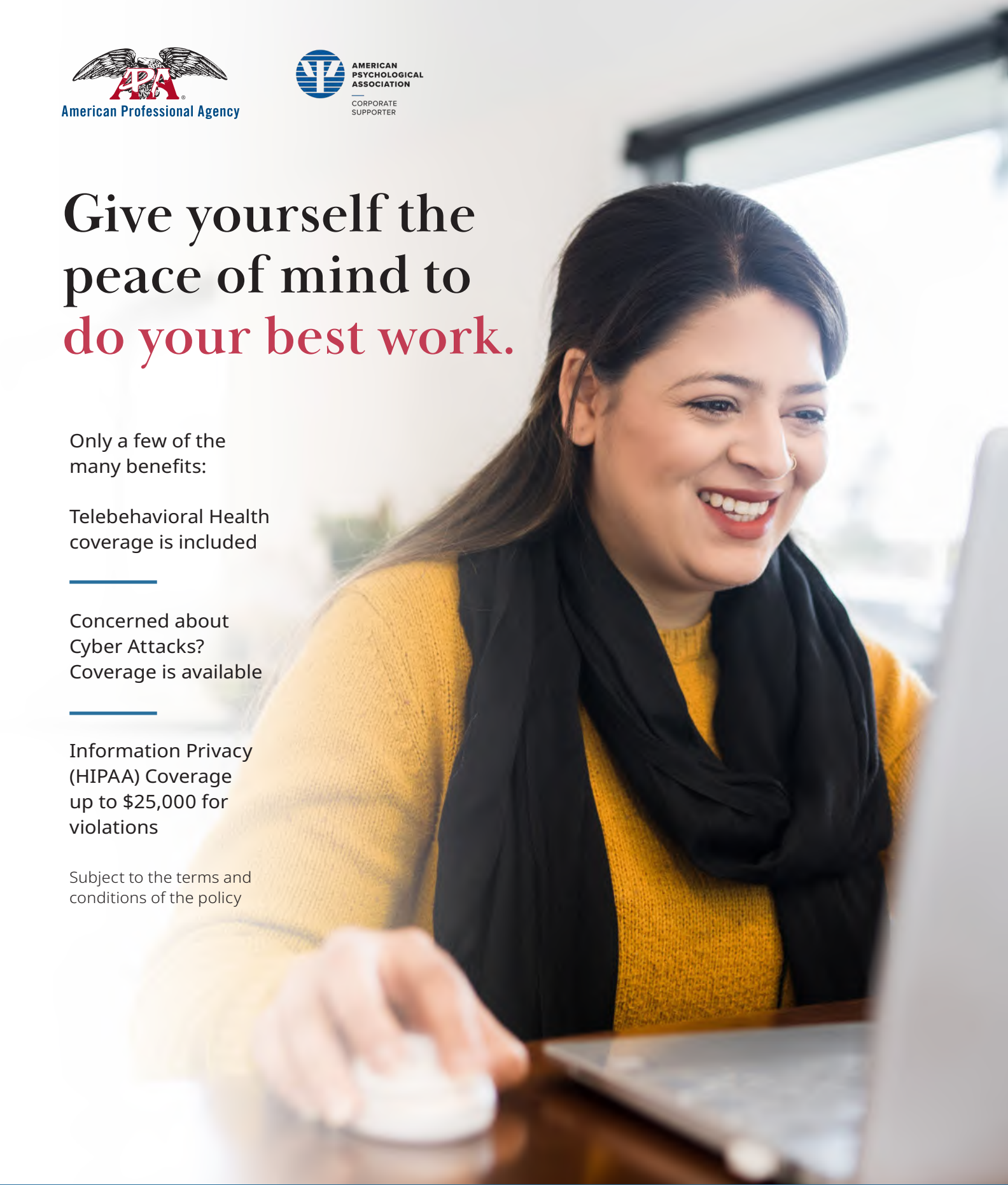
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RESOURCES, OPPORTUNITIES, AND NEWS FOR PSYCHOLOGISTS FROM APA



TRAINING

New System for Consistency in Health Service Psychology

APA has developed a **Taxonomy for Education and Training in Professional Psychology Health Service Specialties and Subspecialties** that lays out consistent terms and descriptions for the levels of education and training that doctoral, doctoral internship, postdoctoral, and post-licensure programs should use to describe their coursework in health service psychology. The taxonomy aims to resolve the use of inconsistent labels to describe training program offerings, which has caused confusion within the profession and for students who want to evaluate training program offerings beyond a program's declared specialty. APA encourages training programs to adopt the taxonomy and use the terms ***exposure, experience, emphasis,*** and ***major area of study*** to describe their offerings within APA-recognized specialties.

For complete descriptions of each instruction level and information on how to apply the taxonomy to your training program, go to on.apa.org/taxonomy.

NEWS

Stay in the Know

Psychologists and students can stay up to date on the latest news in psychology with ***Six Things Psychologists Are Talking About***, APA's biweekly e-newsletter. *Six Things* offers the best in psychology journalism to help readers stay current on trends in the field, new research, and much more between issues of the *Monitor*.

Subscribe at www.apa.org/monitor/six-things

Read, Watch & Listen



1

Home

This children's book from APA's Magination Press tells the story of two children who are thrust into homelessness and uncertain housing conditions but never lose their optimism or determination. The book includes a section on how homelessness affects children and what psychologists can do to help.

https://www.apa.org/pubs/magination/home

2

The People Who Never Forget a Face

Psychologist Josh Davis, PhD, of the University of Greenwich, and super-recognizer Kelly Desborough join the *Speaking of Psychology* podcast to talk about people like Desborough who have an extraordinary ability to recognize faces. Listen wherever you get podcasts.

3

Creating Strengths-Based Approaches to Reduce Public Health Problems

This APA continuing-education webinar on April 13 describes a model for addressing violence, substance use, risky sexual behavior, and more that draws on strategies across many disciplines, including public health and behavioral economics.

Watch at https://www.apa.org/events/2022/book-nook-april.

TOP LEFT: RIDOFRANZ/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.

PREVIEW

Save the Date for APA 2022 'Psychology Is Here'



Registration opens on April 26 for this year's annual convention. We are planning an in-person event for those who can join us in Minneapolis, Aug. 4–6, and online convention programming for those who prefer to remain virtual.

Learn more at https://convention.apa.org.

Confirmed Keynote Speakers (as of press time)

Sarah Brosnan, PhD
GEORGIA STATE UNIVERSITY

Steven Regeser López, PhD
UNIVERSITY OF SOUTHERN CALIFORNIA

Alison Cerezo, PhD
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Randi Martin, PhD
RICE UNIVERSITY

Peter Glick, PhD
LAWRENCE UNIVERSITY

Linda Mona, PhD
VA LONG BEACH HEALTHCARE SYSTEM

James Gross, PhD
STANFORD UNIVERSITY

Nadine Nakamura, PhD
ALLIANT INTERNATIONAL UNIVERSITY–SAN DIEGO

Lisa L. Harlow, PhD
UNIVERSITY OF RHODE ISLAND

Laura E. O'Dell Montelongo, PhD
UNIVERSITY OF TEXAS AT EL PASO

Carl Hart, PhD
COLUMBIA UNIVERSITY

Adriana J. Umaña-Taylor, PhD
HARVARD GRADUATE SCHOOL OF EDUCATION

Emerging Leaders Pre-Convention Series

Early career professionals and students registered for APA 2022 can participate in additional virtual programming specifically designed to help build a strong foundation for a career in psychology. Developed in collaboration with APA's Committee on Early Career Psychologists and the American Psychological Association of Graduate Students, this series of engaging live sessions and Q&As with experts will provide valuable insight into how to successfully navigate your education, start your career, and develop your leadership skills.

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AMERICAN PSYCHOLOGICAL ASSOCIATION



50 THE NEED FOR PAID PARENTAL LEAVE

Psychologists' research shows why employers and policymakers need to more strongly consider paid parental leave, based on the significant benefits to the entire family.



58 MORE GROWTH IN LESS TIME

A growing number of people need mental health support, and seeing a psychotherapist isn't always possible. Psychologists are applying research on single-session interventions to improve patients' symptoms in one visit.

COVER STORY

THE SCIENCE BEHIND CREATIVITY

At an individual level, creativity can lead to personal fulfillment and positive academic and professional outcomes, and even be therapeutic. Psychologists and neuroscientists are increasingly exploring where creativity comes from and how to increase creativity in your own life.
See page 40



ON THE COVER: ILLUSTRATION BY KEN/ADOBE STOCK IMAGES

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Happy stories linked with connection. Page 17

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NEWS

CONCERNS ABOUT INCREASED CAMPUS ASSAULT

The ongoing pandemic may spur an increase in sexual violence on college campuses with a return to less-restricted campus life and the social pressures that come with it. Psychologists' research and interventions are needed more than ever. *See page 26*



Discussing firearm safety. Page 34



Talking with the media. Page 72



Parenting tips on Instagram. Page 67


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PSYCHOLOGY SOLVING PROBLEMS

To elevate psychology for the public, our approach needs to reflect our lessons learned in communicating our science **BY ARTHUR C. EVANS JR., PhD**



A refrain I hear from psychologists is the importance of our field helping the public to better understand and use psychology. This is such a strong sentiment that it emerged as a major priority in APA's strategic plan. As the association has pursued this goal, we have learned a lot about how we can be more effective at achieving it.

The key is connecting relevant science to the issues the public cares about and sharing this knowledge in digestible ways.

Here are three examples of what has been successful:

Consistently incorporating the human element. Complex problems are frequently framed in ways that omit the human element—human cognition, emotion, and behavior. This not only renders psychology irrelevant in the minds of the public, but it also weakens potential solutions to these challenges. Throughout the pandemic, we have seen the effectiveness of public health strategies wane without consideration of human factors issues, such as what motivates people to engage in healthy behaviors and take risks. Psychology can help leaders and policymakers solve complex problems, but we must ensure that the human element is included from the outset.

Word choice matters. The language we use to describe our work has a direct bearing on its success. For example, how we describe APA's efforts to address racism impacts whether people see the work as central or extraneous to our mission. Word choice affects how people understand this work—across the country and the political spectrum. When addressing systemic racism is conveyed as not only a social justice issue, but as critical for building more equitable and effective organizations, people are more likely to see the relevance.

Using the lens of others. Effectively explaining complex concepts to solve real-world problems requires viewing them through the lens of others, not just our own. For example, in APA's conversations with business leaders about fostering psychologically healthy workplaces, we emphasize the positive effects not only on employee well-being, but on the company's efficiency, productivity, and bottom line.

While some of these strategies may seem obvious, putting them into consistent practice is hard. We must remind ourselves that how we communicate is not only key to advancing APA's strategic vision, but an effective way to elevate psychology and the impact we want to have. ■



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

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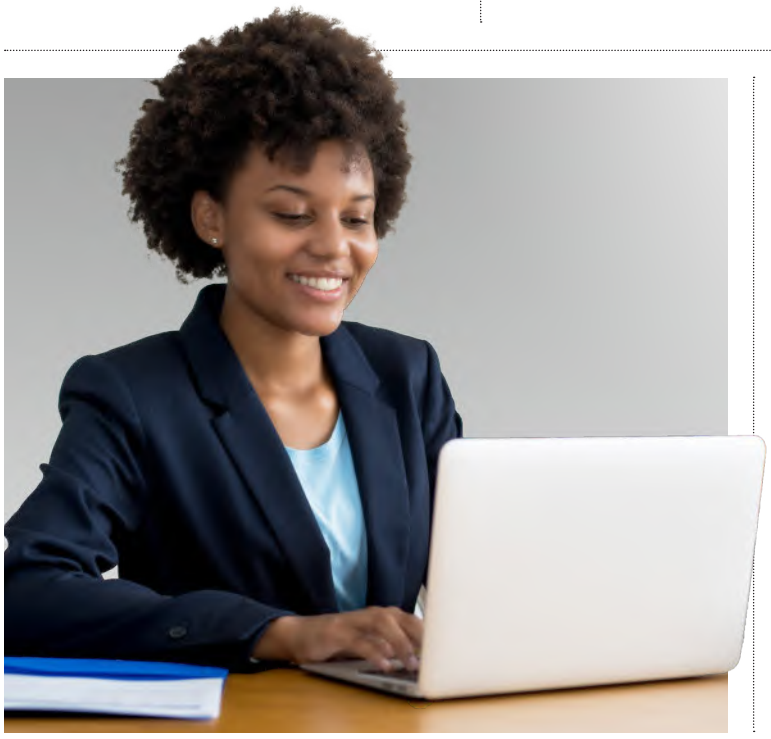
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LIVE LONG AND PROSPER

"Our mission is to go forward—and it has just begun." —Captain Jean-Luc Picard

BY FRANK C. WORRELL, PHD



For a hopeful view of humanity's future, I have turned to *Star Trek: The Next Generation*. In a particularly inspiring 1988 episode, three people who were cryogenically frozen during the 21st century find themselves rescued after floating in space for hundreds of years. They wake up in the year 2364 aboard an interstellar spaceship filled with new species, new technologies, and a vastly different worldview.

When one man grows alarmed because he cannot find any record of his former wealth and investments, the ship's fiercely ethical leader, Captain Jean-Luc Picard, tells him that humanity successfully eliminated money on Earth years ago, along with hunger, war, and want. Indeed, the major conflicts in 2364 are between intergalactic species. Later in the episode, Captain Picard's ship reencounters one of humanity's most advanced enemies after a decades-long respite, causing him to lament: "I think our lives just became a lot more complicated."

I have also been thinking about how our lives are a lot more complicated now than they were in the not-too-distant past. We have groups arguing for and against wearing masks, getting vaccines, and teaching unsavory aspects of U.S. history. In these debates, the lack of conviction by some—and the passionate intensity of others—is prompting these passages from the William Butler Yeats poem "The Second Coming" to run through my mind on repeat:

"And what rough beast, its hour come round at last,
Slouches towards Bethlehem to be born."

Today's debates also make me consider social psychological findings on conformity and obedience. Individuals "actively identify with their leaders and are motivated to display creative followership in working toward goals that they believe those leaders wish to see fulfilled" (Reicher, S. D., et al., 2012). In this time of acrimony and debate, how do we choose leaders who will inspire unity instead of division? This is not a question that I have an easy answer to. Luckily, it is only the 21st century, so we have some time to get to the utopia that Captain Picard describes. ■



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Aiming for unity, rather than division, will guide us toward a more prosperous future.

● **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.

AMERICAN PSYCHOLOGICAL FOUNDATION

Thanks to support received for the EnVISION Antiracism 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





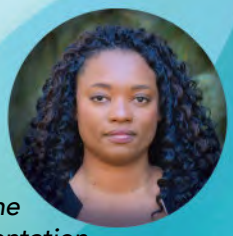
DR. TERESA P. NGUYEN
Sonoma State University
Socioeconomic Status, Racial Discrimination, and the Well-being of Low-Income, Latinx Families



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



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



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

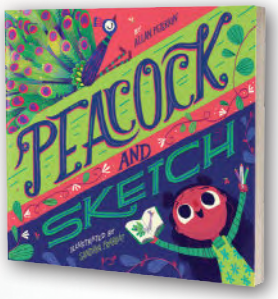
The Visionary Grants are APF's flagship program, providing funding to psychology graduate students and early career psychologists to seed innovation through supporting research, education, and intervention projects and programs that use psychology to solve social problems. In 2020, in recognition of the urgency of the matter, APF added special Visionary grants dedicated to antiracism. This campaign is called **EnVISION Antiracism** and all funds raised are dedicated to new antiracism 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.**

AMERICAN PSYCHOLOGICAL ASSOCIATION

Spring Titles from Magination Press

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Fun story of the fleeting nature of social media stardom



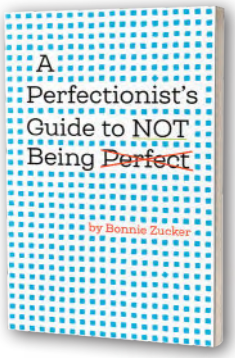
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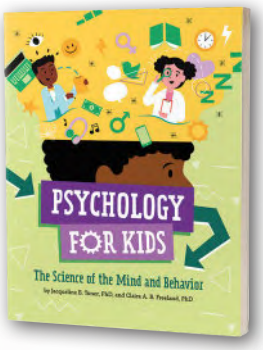
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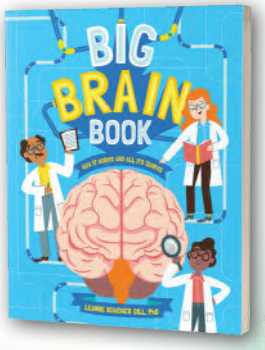
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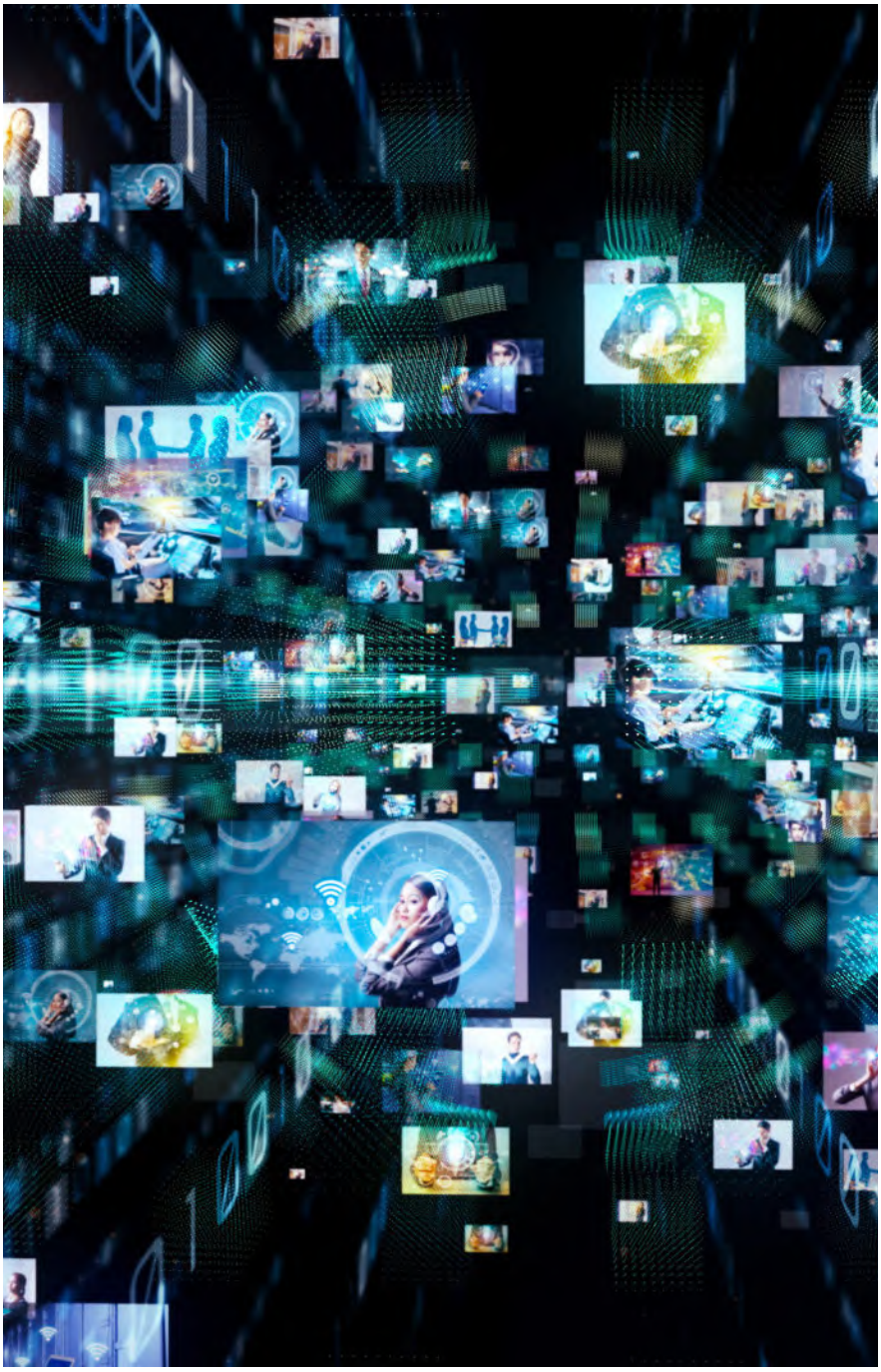


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In Brief



METAMORWORKS/GETTYIMAGES

FAKE NEWS TYPE

Research in the *Journal of Experimental Psychology: General* suggests that while both liberals and conservatives are prone to sharing fake news, conservatives scoring low on measures of conscientiousness are more likely than liberals or more conscientious conservatives to share misleading information. In a pair of studies, researchers measured 972 online participants' conscientiousness and found that low conscientiousness is the primary factor in conservatives' propagation of misleading stories about COVID-19 and the 2016 U.S. presidential election. Two additional studies with 1,446 online participants showed that conservatives who shared misinformation did so regardless of fact-checker warnings. A final pair of studies with 776 online participants indicated that low-conscientious conservatives' sharing of erroneous information was not tied to factors such as time spent using social media, belief in the untrue story, or support of a particular political figure; instead it was driven by a desire to create chaos.

DOI: 10.1037/xge0001120

MEMES HELP US COPE WITH COVID

Funny memes about COVID-19 may help people cope with the stress of the pandemic, according to research in *Psychology of Popular Media*. Researchers asked 748 online participants in December 2020 how often they felt anxious in the past month. They then randomly assigned participants to view three kinds of memes or a control featuring text with no image. Participants who viewed a meme compared with the control reported higher levels of humor and positive emotions, and these levels were indirectly related to a decrease in stress regarding the COVID-19 pandemic. In addition, participants who viewed humorous COVID-related memes thought more deeply about the content, as measured by self-report questions, and had greater confidence in their ability to cope with the stress of the pandemic than people who viewed non-COVID-related content or the control.

DOI: 10.1037/ppm0000371

BILINGUAL EDUCATION AND WRITING SKILLS

A lack of English writing instruction provided in the Spanish language makes it difficult for Spanish-speaking elementary students to learn to write in English, suggests research in the *Journal of Educational Psychology*. Researchers analyzed a series of cognitive tests in both Spanish and English and a narrative writing task in English given to 374 students in the United States in grades 3–5. They found phonological awareness and word retrieval skills in both languages positively predicted English writing performance. English oral language development was also a positive predictor, but those students who were proficient Spanish speakers were less likely to be proficient English writers. The researchers suggest that compared with phonological awareness, oral language development in two language systems may be more complex and knowledge of each language may function independently when it comes to writing.

DOI: 10.1037/edu0000695



DRAŽEN ZIGIC/GETTY IMAGES

Black students receive more severe school discipline than White students, which can damage Black students' perceptions of their school and negatively impact their academic success.

UNEQUAL DISCIPLINE IMPACTS GRADES

Black students receive more severe school discipline than White students, and being punished can damage their perception of their school and negatively impact their academic success years later, suggests research in *American Psychologist*. Researchers analyzed 3 years of school records for 818 Black and 1,563 White sixth-, eighth-, and 10th-grade students in the United States. They found that 26% of Black students were suspended at least once for a minor infraction (e.g., a dress code violation or texting in class) over the course of the 3 years, compared with just 2% of White students. They also found that Black students suspended for a minor transgression during the study's 1st year had worse grades 1 and 2 years later than students who weren't suspended. In addition, the relationship between suspensions and grades was mediated by the suspended students' negative perceptions of their school climate.

DOI: 10.1037/amp0000854

RURAL VS. URBAN CHOICE

A study in *JAMA Psychiatry* indicates that genetic risk factors for certain mental health disorders may unknowingly impact people's decisions regarding whether to live in urban or rural areas. Researchers calculated the polygenic risk scores—a measure of individuals' total number of genetic variants related to a specific disease—for different mental health conditions for 385,793 UK Biobank participants ages 37 to 73. Using address history and population density based on census data, the researchers found higher genetic

risks of schizophrenia, bipolar disorder, anorexia, and autism spectrum disorder and lower genetic risk for attention-deficit/hyperactivity disorder in those who moved from rural to urban areas compared with those who stayed in rural areas. In addition, participants who were born in more densely populated places had higher genetic risk of schizophrenia.

DOI: 10.1001/jamapsychiatry.2021.2983

AUTISM NOT HELPED BY OXYTOCIN

Contrary to previous findings, research in *The New England Journal of Medicine* indicates that oxytocin does not improve social functioning in children with autism spectrum disorder (ASD). Researchers in the United States administered oxytocin, a naturally occurring chemical associated with social bonding and empathy, daily for 24 weeks by nasal spray to 139 children ages 3 to 17 years old with ASD. They gave a second group of 138 children with ASD a placebo. During the study, caregivers rated the children's social functioning and behaviors related to ASD. While children tolerated the oxytocin well and reported few side effects, at the end of the 24-week trial there was no significant difference between the two groups' initial and final caregiver ratings.

DOI: 10.1056/NEJMoa2103583

NOVEL BRAIN STIMULATION TREATS DEPRESSION

According to a study in *The American Journal of Psychiatry*, a new type of transcranial magnetic brain stimulation brought rapid remission to almost 80% of participants with severe depression. Researchers recruited 29 participants in the United States with treatment-resistant depression. About half received the brain stimulation, dubbed Stanford neuromodulation therapy, and the rest underwent a placebo procedure. The treatment used a much higher rate of magnetic pulses than similar previously tested brain stimulation therapies. It was also personalized to each patient, with MRI scans used beforehand to identify the optimal brain regions in which to deliver the pulses. After 5 days of treatment involving ten 10-minute sessions with 50-minute breaks in between, 78.6% of the participants in the treatment group no longer showed depressive symptoms, with just 13% of the control group experiencing remission.

A new type of transcranial magnetic brain stimulation brought rapid remission to almost 80% of participants with severe depression.

DOI: 10.1176/appi.ajp.2021.20101429

PARKINSON'S DEATHS SOAR

A study in *Neurology* reports that age-adjusted mortality from Parkinson's disease rose 63% in the United States in the past 20 years. Researchers analyzed 1999 to 2019 National Vital Statistics System records, and the data revealed that over the 2 decades, Parkinson's disease was reported as the cause of death of 479,059 people. After adjusting for age, the researchers noted that the death rate from Parkinson's increased from 5.4 deaths per 100,000 people in 1999 to 8.8 deaths per 100,000 people in 2019, reflecting a 2.4% annual increase and a total



ZODEBALA/GETTYIMAGES

increase of 63%. In 2019, men were twice as likely to die from the disease as women, possibly due to the protective effect of estrogen. In addition, higher mortality was seen among White people (9.7 per 100,000 people) compared with Hispanic (6.5 per 100,000) and Black people (4.7 per 100,000), possibly due to Hispanic and Black people being underdiagnosed, stemming from socioeconomic barriers preventing neurologist appointments. The researchers suggested the rise in Parkinson's mortality may be related to greater exposure to environmental risk factors and improved accuracy in determining cause of death.

DOI: 10.1212/WNL.0000000000012826

ADHD AND GAD

Adults with attention-deficit/hyperactivity disorder (ADHD) are 3 to 4 times more likely to also have generalized anxiety disorder (GAD) at some point in their life, according to a study in the *Journal of Affective Disorders*. Researchers examined a nationally representative sample of 6,898 Canadians ages 20 to 39. Of those surveyed, 272 had ADHD and 682 had GAD. The researchers found that 1 in 9 respondents with GAD had ADHD, compared with 1 in 33 of those without GAD. Factors associated with a GAD diagnosis among those with ADHD included being female, experiencing abuse as a child, having an annual income less than $40,000, having fewer close relationships, and having a lifetime history of depression.

DOI: 10.1016/j.jad.2021.10.020

DEMENTIA INCREASES WITH RISING RESTING HEART RATE

A study in *Alzheimer's & Dementia* indicates that higher resting heart rate is linked to greater dementia risk and faster cognitive decline, independent of cardiovascular disease. Between 2001 and 2016, researchers followed 2,147 dementia-free adults in Sweden with a mean baseline age of 71. Cognition and dementia status were assessed at multiple time points. Over a median follow-up of 11.4 years, 289 people were diagnosed with dementia. High resting heart rate at the end of the study was associated with an increased risk of dementia and steeper overall cognitive decline even after excluding participants with baseline cardiovascular disease and those who developed cardiovascular disease during follow-up. The researchers believe the relationship between elevated resting heart rate and cognition might in part reflect pathophysiological pathways independent from vascular risk factors, but they also did not rule out the possibility that some participants' cardiovascular disease went undiagnosed.

DOI: 10.1002/alz.12495



Self-reported maternal cannabis use during pregnancy is associated with increased anxiety, aggression, and hyperactivity in young children.

MATERNAL CANNABIS USE AND ANXIETY

Self-reported maternal cannabis use during pregnancy is associated with increased anxiety, aggression, and hyperactivity in young children, corresponding with widespread reductions in immune-related gene expression in the placenta, suggests a study in the *Proceedings of the National Academy of Sciences*. Researchers examined placental gene expression, physiology, and early childhood

ALINA ROSANOVA/GETTY IMAGES; OPPOSITE PAGE: DRAGANA991/GETTY IMAGES; PEOPLEIMAGES/GETTY IMAGES



behavior and emotional functioning in a long-term study of 322 mother-child pairs in the United States beginning in 2009. The children of mothers who self-reported cannabis use during pregnancy showed higher anxiety, aggression, hyperactivity, and cortisol levels compared with the children of mothers who did not report cannabis use. In addition, RNA sequencing of placental perinatal tissue in a subset of participants revealed that maternal cannabis use was associated with lower expression of immune-activating genes, including pro-inflammatory cytokines, which are involved in protecting against pathogens. The cannabis-related suppression of several placental immune-gene networks predicted higher anxiety and hyperactivity in this subset.

DOI: 10.1073/pnas.2106115118

NO COGNITIVE BENEFITS FROM FORTIFIED FORMULA

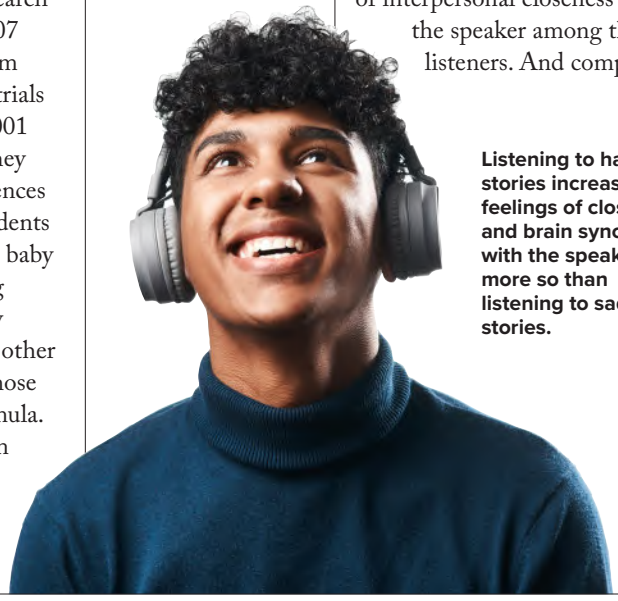
Adolescents who were fed fortified formula as infants showed no advantage in academic performance over those who were fed standard formula, according to a study in *The BMJ*. Researchers analyzed data from 1,607 infants pooled together from seven randomized clinical trials conducted from 1993 to 2001 in the United Kingdom. They found no significant differences in math exam scores in students at age 16 who had received baby formula enriched with long chain polyunsaturated fatty acids (LCPUFAs), iron, or other nutrients compared with those who received standard formula. Rather, a slight reduction in English and math performance was observed in children at age 11 who were fed LCPUFA-fortified formula.

DOI: 10.1136/bmj-2021-065805

Adolescents who were fed fortified formula as infants showed no advantage in academic performance over those who were fed standard formula.

HAPPY STORIES SYNCH BRAINS

Listening to happy stories increases feelings of closeness and brain synchrony with the speaker more so than listening to sad stories, according to research in *eNeuro*. Researchers in China asked a participant (the speaker) to watch videos and communicate the contents to 32 other participants (the listeners). The listeners heard about either a happy story, a sad story, or a neutral story. While the speaker told the story, the researchers recorded neural activity of both the speaker and the listeners with electroencephalography (EEG). After the story ended, the researchers assessed the interpersonal closeness between the speaker and the listeners. Hearing happy (rather than sad) stories resulted in increased recall quality and a higher rating of interpersonal closeness with the speaker among the listeners. And compared



Listening to happy stories increases feelings of closeness and brain synchrony with the speaker more so than listening to sad stories.

with the sad group, the happy group and the corresponding speaker showed higher interpersonal brain synchrony in the frontal cortex and left temporoparietal cortex, which are involved in emotional processing and theory of mind, respectively.

DOI: 10.1523/eneuro.0245-21.2021

TOOL USE AND LANGUAGE SHARE PROCESSES

According to research in *Science*, learning to use tools that require complex motor skills can improve people's ability to understand the syntax of complex sentences and vice versa. In the first of six studies, researchers asked 20 participants in France to complete several tests consisting of a series of syntax exercises as well as motor training using 30-centimeter-long pliers to insert small pegs into holes. Using fMRI during the participants' performance of each task, the researchers discovered that the handling of the tool and the syntax exercises both produced similar patterns of brain activity in a small region within the brain's basal ganglia. Then, across five additional studies, 205 participants performed a variety of syntactic comprehension tasks before and after motor training with the pliers. The result was that motor training with the tool led to improved performance in the comprehension tasks. The reverse was also found: Exercises for better understanding sentences with complex structure preceded improved motor performance with the tool.

DOI: 10.1126/science.abe0874



VLADIMIR VLADIMIROV/GETTY IMAGES; OPPOSITE PAGE: NEVODKA/GETTY IMAGES

MENTAL SELFIES

People's mental images of themselves are influenced by the types of personalities they think they have, suggests research in *Psychological Science*. Researchers asked 77 participants in the United States to answer personality and self-esteem questionnaires and to choose which of a series of two random computer-generated faces looked more like their own. Averaging the results of several hundred trials resulted in "mental selfies" for each participant. The researchers found that people with higher social self-esteem produced more true-to-life self-portraits. They also found that participants' beliefs about themselves strongly affected how they pictured their own appearance. For example, if a person believed that they were highly extraverted, they imagined their own face looking more assertive, animated, and outgoing than it appeared to external observers. A second study with 39 participants that focused on body image showed that those with negative emotional attitudes toward their appearance created mental selfies with bodies larger than their true size. The researchers hope their method can assess the treatment of people with body image disorders.

People with anxious attachment styles use manipulative tactics to keep their romantic partner in a relationship, but men and women who engage in such tactics end up becoming more anxious about their relationships.

DOI: 10.1177/09567976211018618

ANXIOUS PARTNERS AND TOXIC STRATEGIES

People with anxious attachment styles use manipulative tactics to keep their romantic partner in a relationship, but men and

women who engage in such tactics end up becoming more anxious about their relationships, suggests research in *Evolution and Human Behavior*. Researchers surveyed 104 romantic partner dyads in the United States and found that anxiously attached participants engaged in cost-inflicting mate retention strategies, such as snooping through a partner's email inbox or talking to another person at a party to make a partner jealous, more often than people who were not anxiously attached. In a second study with 489 partner dyads in Germany, the researchers also found that cost-inflicting mate retention strategies predicted higher attachment anxiety 18 months later.

DOI: 10.1016/j.evolhumbehav.2021.04.005

ALL IN THE MIND

According to a study in *JAMA Network Open*, many of the side effects that people report after a COVID-19 vaccination may be caused by the "nocebo" effect, the opposite of the placebo effect, whereby a person experiences an unpleasant side effect after taking a treatment with no pharmacological effect. Researchers reviewed 12 randomized clinical trials studying COVID-19 vaccines, with 22,802 people receiving the vaccine and 22,578 people receiving a placebo. They found that, of the vaccine group, around 46% experienced systemic symptoms such as headaches and fatigue after the first injection; however, 35% of the placebo group reported these effects, too. After the second shot, systemic symptoms were experienced at nearly twice the rate in the vaccine group compared with the placebo group, at 61% and 32%, respectively. Overall, the data indicate that 64% of all systemic side effects related to both rounds of the vaccine were driven by the nocebo effect.

DOI: 10.1001/jamanetworkopen.2021.43955

FAKE MEAT, REAL DISGUST

More than a third of people find the idea of eating "cultured meat," or meat grown from animal cells in a laboratory, to be disgusting, suggests research in the *Journal of Environmental Psychology*. In an initial study, researchers asked 398 online participants in the United Kingdom and the United States, about half of whom were meat eaters and half of whom were vegetarians, what they thought of cultured meat based on a brief description of what it is and how it is made. About 35% of meat eaters and 55% of vegetarians felt too disgusted by cultured meat to try eating it. In a second study with 590 online participants, describing cultured meat as unnatural predicted more disgust among both vegetarians and meat eaters. Meanwhile, reminding participants that cultured meat is derived from animal flesh predicted less disgust among meat eaters but more disgust among vegetarians. Similar results were found in a third study in which 599 online participants were told that cultured meat looks like animal flesh.

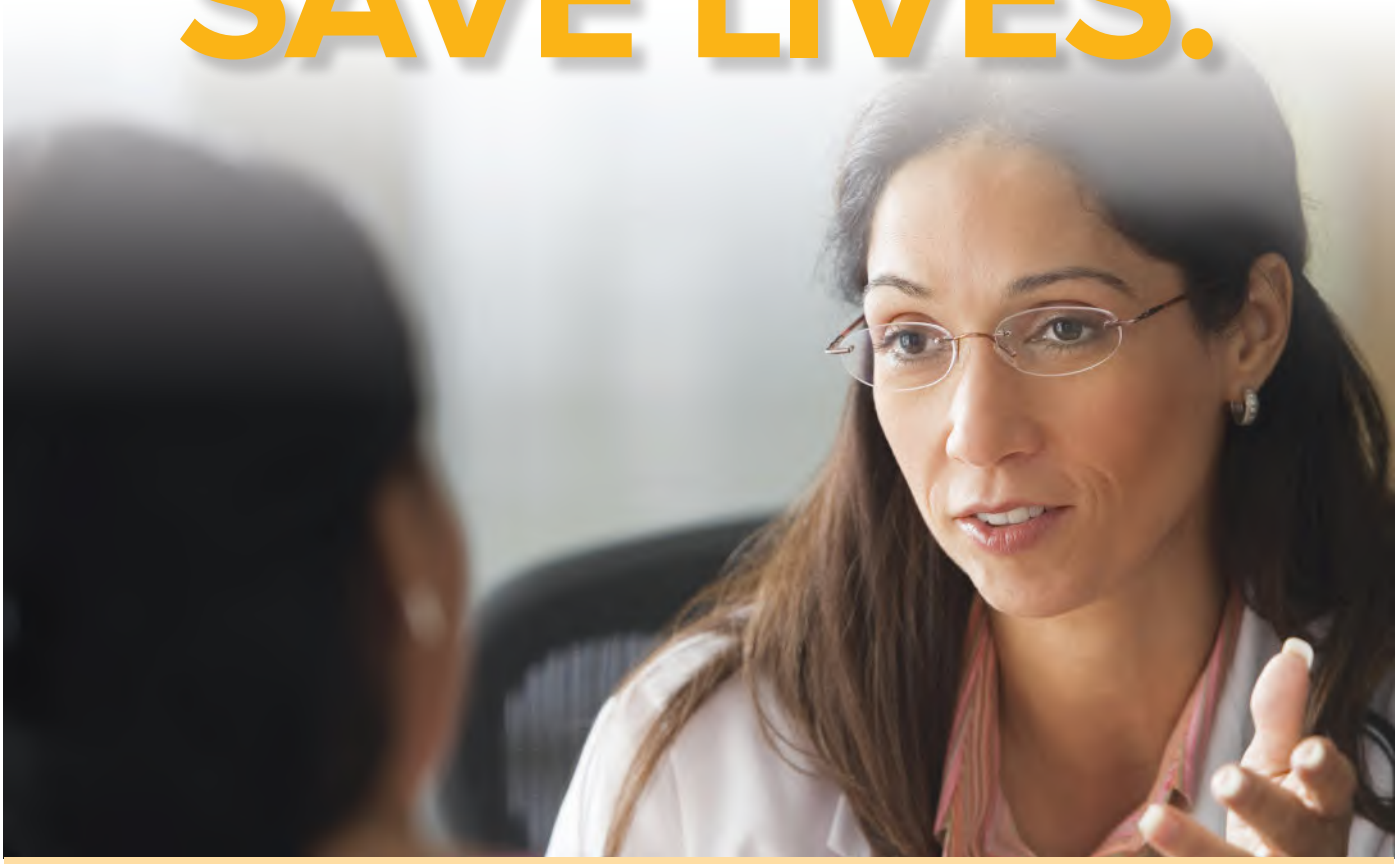
DOI: 10.1016/j.jenvp.2022.101758

More than a third of people feel too disgusted by meat grown from animal cells in a laboratory to try eating it.

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



YOU CAN SAVE LIVES.



Treating tobacco use is an important part of mental health treatment.

Double your patients' chances of quitting with counseling and medication.

NEW YORK STATE | Department of Health

TalkToYourPatients.health.ny.gov

U.S. Dept. of Health and Human Services, Public Health Service, Treating Tobacco Use and Dependence Clinical Practice Guideline 2008 Update

PAID EDUCATIONAL ADVERTISEMENT

Treating Tobacco use is an Important Part of Mental Health Treatment

Six Things Every Health Care Provider Should Know

Providers who treat people with mental health conditions have an important role to play in their patients' ability to quit using tobacco products. Here are six things that every provider should know:

1. **Providing smoking cessation treatment is an important part of mental health treatment.**

   Providers who treat people with mental health conditions are well positioned to help patients successfully quit tobacco use and enjoy the mental, emotional, and physical benefits of a tobacco-free life. Smoking cessation treatments work.

2. **Medicaid reimburses for counseling and covers FDA-approved smoking cessation medications, including over-the-counter therapies with a fiscal order.**

   Medicaid will cover repeated treatment and prescriptions because it can take multiple attempts before patients quit successfully. Medicaid covers nicotine replacement therapies (NRT) – patch, gum, lozenge, inhaler and nasal spray; and two non-nicotine oral medications (pills) – bupropion SR (brand names Zyban or Wellbutrin) and varenicline (brand name Chantix).

3. **People with mental health conditions smoke at rates that are at least two times higher than the general population.[1]**

   They may also smoke more heavily and frequently, compared to those without mental health conditions. The Centers for Disease Control and Prevention estimates that nearly one third (31%) of all cigarettes consumed in the United States are smoked by people with mental health conditions.[1]

4. **The high rates of smoking among people with mental health conditions have devastating health consequences.**

   Smoking-related diseases such as cardiovascular disease, lung disease, and cancer are among the most common causes of death among adults with mental health conditions.[2] Despite the heavy disease burden, a US national survey of mental health treatment facilities found that only about one-quarter provided services to help patients quit smoking.[3]

5. **Many smokers with mental health conditions want to and are able to quit smoking.[4]**

   Research has shown that adult smokers with mental health conditions—like other smokers—want to quit, can quit, and benefit from proven smoking cessation treatments.[5]

6. **Quitting smoking will not interfere with mental health recovery and may have mental health benefits.**

   Smoking is not an effective mental health treatment strategy. On the contrary, smoking is associated with poor clinical outcomes, such as greater depressive symptoms, greater likelihood of psychiatric hospitalization, and increased suicidal behavior.[4]

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PROMOTING HIGH SCHOOL PSYCHOLOGY AS A SCIENCE

New initiatives aim to elevate the subject's status as a science and help students learn how to apply psychological science in everyday life

BY REBECCA A. CLAY

The College Board, which runs the high school Advanced Placement (AP) Program, has moved AP psychology from a portfolio that included history, government, and politics to a science portfolio that includes biology, chemistry, physics, and environmental science. An APA group also recently revised the national standards for high school psychology curricula that emphasize the subject's status as a science.

These moves aim to expose a huge segment of the public to that message. Almost a third of graduating high school students in the United States have taken psychology, according to past data from the National Center for Education Statistics. When it comes to AP psychology courses, growth has been exponential, with the number of students taking the exam jumping from 151,006 students in 2009 to 311,215 in 2019. (Growth among female students has been even more impressive, with the number of female students taking AP psychology courses during that period increasing by 114%, outpacing the overall 106% growth.) The exam now attracts the fifth-highest number of students of the 38 AP subjects offered and is the most popular of the science tests, according to the College Board's 2021 Program Summary.

But despite psychology's popularity, students sometimes don't realize it's a science, said Julie Gowans, who teaches AP psychology at Utah's Payson High School. For example, some students come in to her AP class convinced that people only use 10% of their brains or that ESP is real.

"I'm constantly saying that just because you saw it on TikTok or read it on a meme doesn't make it true," said Gowans. "I remind them that psychology is a science and that findings need to be backed up by science."

Departmental structure can also diminish psychology's status as a science. In most high schools, psychology is housed within the social studies or social sciences departments.

"Not everyone teaching psychology in our country is even credentialed in psychology," said Gowans, explaining that some teachers are simply asked to take on psychology along with other classes they are teaching, such as geography or social studies. "They don't have a background in psychology or really know what it is, how to teach it, or the difference between real science and pseudoscience."

The numbers back up the credentialing issue, said Susan Orsillo, PhD, senior director of psychology education and training at APA. Sixty-nine percent of high school psychology teachers who responded to a recent APA Teachers of Psychology in Secondary Schools (TOPSS) survey reported that they had a state credential in social studies or social science, with only 42% having a state credential in psychology.

But psychology's popularity among high school and undergraduate students makes it especially important to take advantage of this opportunity to get across the fact that psychology is a science, said Orsillo.

"Imagine if you could place an ad that would reach 300,000 people, an ad that goes on for an entire semester or a year," she said, noting that for many students, this introductory high school class will be their only formal exposure to psychology. "This is an unbelievable opportunity to teach the value of psychology."

High school psychology can help students achieve scientific literacy and acquire the skills they need to assess

RESOURCES

Do's and don'ts in teaching psychology
Welle, V., et al.
APA, 2020

High school psychology course template
TOPSS
Updated 2021

Resource vetting rubric for high school psychology teachers
APA Working Group on Ongoing Professional Development, APA Summit on High School Psychology Education, 2017

Free unit lesson plans for high school teachers of psychology
TOPSS
Updated 2021

APA Summit on High School Psychology Education
APA, 2017



RICHVINTAGE/GETTY IMAGES

High school psychology courses can help students learn scientific literacy and understand research methods.

information—and misinformation—about the pandemic, climate change, or other topics affecting their lives, Orsillo explained. By showing how psychological science can address such key societal issues as racism or bias against gender and sexual minorities, high school psychology can get students excited and help attract greater diversity to the profession. The class can also help students lead healthier lives, understand themselves better, appreciate the importance of mental health, and reduce stigma around mental illness.

NEW NATIONAL STANDARDS

APA and other education organizations are making it easier for high school psychology teachers to teach psychology as the science it is, no matter what department offers it. An APA working group recently revised the national standards for high school psychology curricula, which were passed by APA's Council of Representatives at their meeting in late February to make them official APA policy.

The revised standards build on past efforts. In 2017, the APA Summit on High School Psychology Education made the case that psychology is a science and should be part of science, technology, engineering, and mathematics (STEM) programs in high schools. Supported by the work of other summit working groups, the report that the Working Group on Psychology as Science produced not only explains why psychology is a science but also offers resources for teachers who want to become advocates.

"Most introductory psychology classes are housed in the social studies department, and teachers are trained in teaching social studies, not the science of psychology," said Kristin Whitlock, a psychology teacher at Davis High School in Kaysville, Utah, who cochaired the working group. "We wanted to give teachers information they could use as they advocate within their own states for why psychology should be moved out of social studies or why students should



SYOLACANISTOCK GETTY

New initiatives call for more emphasis on the "how" of psychological science

at least earn science credits for taking the class."

One theme that emerged from the summit's research was the need to emphasize the how of psychological science as well as the what, said Whitlock. As the group examined national standards for other high school science classes, she said, "what stood out was that in psychology, students learn the concept of psychology but don't really do psychology."

That emphasis on doing science underpins APA's revised National Standards for High School Psychology Curricula, said Tina Athanasopoulos, who chaired APA's National Standards for High School Psychology Curricula Working Group.

Think of the revised standards like the Parthenon, said Athanasopoulos, who also heads the Division of Social Science and World Language at Prospect High School in Mount Prospect, Illinois. In the revised standards, scientific inquiry and research methods make up the building's floor. There are five pillars representing the major content domains: biology, cognition, development and learning, social and personality psychology, and physical and mental health. The roof is made up of themes to be integrated throughout courses, such as diversity, equity, inclusion in pursuit of a more just society, and the idea that applying psychological principles can improve lives, organizations, and communities.

"We've moved research and scientific methods from a content pillar and made it the foundation," said Athanasopoulos. "It's not like one unit; research should be ingrained in every unit you're covering with students."

The pillar model and the integrative themes draw on the work of APA's Introductory Psychology Initiative (IPI), which focused on undergraduate psychology. APA's Council of Representatives approved IPI's recommended set of student

learning outcomes for the introductory psychology course in October 2021.

A REVISED AP COURSE

The IPI also prompted changes at the College Board, with AP psychology now housed within the science portfolio.

"The College Board is not the arbiter of whether something is classified as a science, social studies, or what have you," said psychologist Amy Fineburg, PhD, director of AP Psychology Curriculum at the College Board and a past president of APA's Div. 2 (Society for the Teaching of Psychology). "We follow guidance from professionals in the field and professional organizations like APA."

The College Board has also overhauled its AP psychology framework so that it aligns with the revised guidelines and the desired student learning outcomes the IPI identified. "What we're trying to do is make sure students have the best possible chance of earning college credit through the AP course and exam," said Fineburg. "And the best way to do that is to align them with recommendations from professionals in the field."

In the past, Fineburg explained, the section on scientific methods was a separate unit in the AP psychology course. In the new version, research methods and data interpretation are not just the foundation of the course but are integrated into every other unit of study. "We feel that this approach really helps to solidify the notion that research methods are the basis for drawing conclusions as a psychologist, whether you're in practice or in an academic, research-oriented subfield of psychology."

The College Board released the proposed framework for public comment in December 2021 and plans to offer training and resources for teachers to begin implementing it in the 2023–24 school year.

SUPPORT FOR TEACHERS

All these changes may be daunting for some teachers, admitted Terri Lindenberg, chair-elect of TOPSS and a psychology teacher at Lake Park High School in Roselle, Illinois.

"A lot of psychology teachers don't have a background in psychology and are often just given a psychology class to teach," said Lindenberg. "That can be a little intimidating."

And while moving psychology classes into science departments would help students by letting them earn needed science credits and would open up scholarships and other opportunities available in the STEM disciplines, teachers may fear that move, added Whitlock. Many teachers, especially those trained in teaching social studies, worry they won't be allowed to teach psychology if it moves into the science department, she explained. States will need to grapple with whether to allow current psychology teachers to teach the course no matter where it ends up. They will also need to consider how psychology teachers are trained and credentialed, she said.

APA and TOPSS are aware of the concerns of current psychology teachers, said Emily Leary Chesnes, associate director of precollege and undergraduate education at APA. "We are considering how to promote psychology as a science at the high school level without disenfranchising current teachers who enjoy and excel at teaching the course," she said, adding that changes aren't likely to happen in most schools soon.

"A lot of psychology teachers don't have a background in psychology and are often just given a psychology class to teach."

TERRI LINDENBERG
CHAIR-ELECT, TOPSS

Currently, only 13 states require a psychology teaching credential to teach high school psychology, according to APA's Advocacy Toolkit for the Psychology Teaching Credential, and more than 30 states have no psychology curriculum standards. Encouraging state boards of education to adopt APA's proposed curriculum standards is a key goal, said Leary Chesnes. TOPSS will also continue to talk with states about credentialing or recertification, said TOPSS Chair Dana Melone, a psychology teacher at Kennedy High School in Cedar Rapids, Iowa.

Those aren't the only goals for TOPSS, which celebrates its 30th anniversary this year and welcomes as members all high school psychology teachers regardless of their background and training. The committee will also promote the revised standards among high school psychology teachers, promote TOPSS's existing resources for teachers (see Resources), and develop new professional development opportunities for teachers.

Said Melone, "The more we can get the word out to schools about the standards and TOPSS's resources, the better off teachers will be." ■

A CRISIS OF CAMPUS SEXUAL ASSAULT

The ongoing pandemic may spur an increase in sexual violence on college campuses. Psychologists' research and interventions are needed more than ever.

BY CHARLOTTE HUFF

The return of college students to campuses has also meant a return to the potential for campus sexual assault, as new students adjust to college, its social life, and pressures to drink and conform. Previous research shows that the period of time from the start of the academic year until Thanksgiving break is a particularly vulnerable stretch for first-year students (Kimble, M., et al., *Journal of American College Health*, Vol. 57, No. 3, 2008).

This year, many college leaders have welcomed back essentially two first-year classes, as the sophomores were largely isolated learning online the previous year, said Erin Bonar, PhD, an associate professor in the Department of Psychiatry at the University of Michigan in Ann Arbor. "Whether it's technically their first or second year in college, they're in a new environment and that is going to potentially affect their risk for sexual violence or sexual assault," she said.

Moreover, college students of all ages might be tempted to go overboard socializing as they embrace a return of pre-pandemic campus life, Bonar said. "Some people are excited to be back, they want to party, they want to see their friends, they're drinking, and that context might increase the risk of sexual violence occurring."

Students returning to campus have also been vocal about episodes of sexual assault. In September 2021, more than 100 students gathered at Virginia Tech to highlight what they described as a worrisome pattern, including assaults at sports events and other university gatherings. The previous month, hundreds of students at the University of Nebraska–Lincoln protested over several nights after the alleged sexual assault of a young woman at a fraternity house there.

Despite disturbing reports in media coverage, it's too soon to gather national data about sexual assault trends for the current academic year, said Bonar. Plus, it's not guaranteed that violence will increase, she pointed out. Some students might limit dating or avoid large gatherings owing to ongoing COVID concerns. Others might be required to periodically quarantine as a result of potential exposures, she said.

There is also an increasing awareness among students of what is considered sexual assault. A 2021 study, involving 2,566 college students who took an online survey, indicated heightened awareness in the wake of the #MeToo movement. The findings, which covered a 3-year period that overlapped with the start of the movement, found a trend toward greater recognition over time that past unwanted sexual experiences should be described as "sexual assault" (Jaffe, A. E., et al., *Psychology of Violence*, Vol. 11, No. 2, 2021).

Psychologists, researchers, and campus activists have long strived to reduce students' vulnerability to unwanted sexual contact, including assaults, at U.S. colleges and universities. Overall, 13% of college and graduate students report nonconsensual sexual contact by physical force or an inability to consent, according to a 2019 Association of American Universities survey of nearly 182,000 students. The highest rates occurred among female undergraduates (25.9%) and college students who identified as gay, transgender, or nonbinary (22.8%).

Psychologists are contributing to increased insights into the trauma of campus sexual assault, measuring the extent of the problem, identifying the risk factors for perpetration, and developing related interventions. Counseling centers play a key role in screening and watching out for signs of relationship and sexual trauma among students, according to an American College Health Association toolkit

FURTHER READING

Addressing sexual and relationship violence: A trauma-informed approach
American College Health Association, 2020

APA resolution on campus sexual assault
APA, 2019

In good company: Social network diversity may protect men against perpetrating sexual violence
Kaczkowski, W., et al. *Psychology of Violence*, 2017

Secondary and 2-year outcomes of a sexual assault resistance program for university women
Senn, C. Y., et al. *Psychology of Women Quarterly*, 2017

LESLYE DAVIS/THE NEW YORK TIMES/REDUX



A student at Hobart and William Smith Colleges sits where she found out that her accused assaulters were exonerated.

about violence prevention. Victim advocates, often affiliated with the campus, provide support and assistance to those students who decide to report a violent encounter.

But there are also gaps in knowledge, including a limited understanding of how sexual assault impacts gay and transgender individuals. A report published in the wake of a 2018 University of Michigan Injury Prevention Center's summit on campus sexual assault prevention also cited the need for more evidence-based interventions. Although promising approaches exist, such as active bystander training, such approaches typically address individual- and relationship-level risk factors, "with little known about what works at the community level," according to Bonar and her colleagues who wrote the report (*Journal of American College Health*, online first publication, 2020).

DEVELOPING INTERVENTIONS

Today's students are pushing for their colleges to offer more than "check-the-box methods" of prevention, something more substantial and comprehensive than a 30-minute online program before fall registration, said Tracey Vitchers, executive director of It's On Us, a nonprofit focused on campus sexual assault prevention.

"What we're seeing that looks very different this time around with this new wave of campus protests against sexual assault is the demand from students for schools to take more accountability," she said. "For [them] to take a more comprehensive and community-centered approach to sexual violence prevention that actually stops it from happening in the first place."

At Rutgers University in New Jersey, clinical psychologist Courtenay Cavanaugh, PhD, has observed that the undergraduate students in her Violence Against Women & Women's Health class don't want to just learn about the scope of sexual assault; they also want information about preven-

tion. "They really [are] hungry to take more action to address the problem," she said.

Beginning in 2017, Cavanaugh started teaching bystander intervention to her students, using a video-based training program called the TakeCARE approach, which has been developed and evaluated by other researchers (Jouriles, E. N., et al., *Journal of Consulting and Clinical Psychology*, Vol. 87, No. 1, 2019). The first group of 16 students took what they learned and then disseminated it more broadly, she said, reaching 156 other students through peer-facilitated group sessions on campus (*Teaching of Psychology*, Vol. 46, No. 4, 2019).

Typically, bystander intervention and other prevention training are part of a university's orientation as well as elective programs offered later in the year, which students may not make time to attend or think they would benefit from, Cavanaugh said. "What's novel about the work I'm doing," she said, "is that there are few examples of incorporating these bystander programs into academic courses."

TakeCARE, Bringing in the Bystander, and the Men's Program are the most commonly evaluated bystander interventions for the prevention of sexual violence, according to a systematic review of 44 studies looking at programs in the United States and Canada (Mujal, G. N., et al., *Trauma, Violence, & Abuse*, Vol. 22, No. 2, 2021).

Another recent study, a meta-analysis of 24 studies involving bystander interventions on college campuses, found short-term benefits from the programs, which were delivered in a variety of formats, from video and online training to in-person sessions by trained facilitators. Those students who participated expressed stronger beliefs about the problem of sexual violence and displayed efforts to intervene compared with those who didn't (Jouriles, E. N., et al., *Journal of American College Health*, Vol. 66, No. 6, 2018). The bulk of these meaningful changes persisted at least 6 months, but they did diminish over time, the researchers found.



Experts are concerned that college students of all ages might be tempted to go overboard socializing as they return to a less-restricted campus life, affecting their risk for sexual violence or sexual assault.

Bystander programs are one of the most common prevention tools used by colleges, said Kim Webb, LPC, the immediate past president of the American College Health Association, who also directs the Relationship and Sexual Violence Prevention Center at Washington University in St. Louis. But bystander approaches can't aid students who are assaulted behind closed doors and can't prepare bystander students for every scenario they might face, Webb said. There are also other potential downsides.

Students may hang back, assuming that someone else will intervene or out of fear that their impression is incorrect, Webb said. "They don't help because they're afraid that they're misinterpreting what's going on," she said. "They don't want to be wrong, and they don't want to be ostracized as a friend or lose a friend because they're trying to address something that they are misinterpreting."

Still, although the training is directed at individual students, it can be a powerful weapon to engage the entire college community, Webb said. Any student can learn the strategies and practice them, she said. "You don't have to have a personal connection to sexual violence to feel that you can make a difference."

In other emerging research, psychologists are looking at whether insights into protective

SEAN PROCTOR/THE NEW YORK TIMES/REDUX

behavioral strategies may help pave the way for future prevention efforts. They already show promise in the context of alcohol. College students who adopt protective behavioral strategies, such as alternating alcoholic and nonalcoholic beverages, have been shown to be less prone to driving while drunk or engaging in other high-risk drinking behaviors, according to one review article (Pearson M. R., *Clinical Psychology Review*, Vol. 33, No. 8, 2013). Psychologists hope that, to a similar degree, identifying protective behavioral strategies may help guard against sexual assaults.

In a 2021 study, researchers surveyed 567 men at two universities who endorsed sexual attraction toward women. They assessed their use of a dozen protective behavioral strategies, among them an awareness that alcohol can impair their judgment and efforts to respond to a woman's sexual cues, such as by backing off or checking in if her enthusiasm decreases. Nearly half of participants reported "always" using these strategies, and 71.3% reported "always" or "often" (*Aggressive Behavior*, Vol. 47, No. 3, 2021).

"What's particularly encouraging about the findings is that such a large percentage of college men are regularly using these protective strategies that we think are likely to reduce risk associated with sexual behavior," said Teresa Treat, PhD, the study's lead author and a professor in the Department of Psychological and Brain Sciences at the University of Iowa in Iowa City. "That suggests that they might be useful prevention targets."

Meanwhile, nearly 15% of participants reported "never" or "seldom" using the strategies. In addition, researchers found that men who had engaged in at least one risky behavior in the previous year, such as having sex without protection, used fewer of these strategies.

Treat stressed that her findings to date point to an association but not a causal relationship. "We don't know yet whether using the protective strategies reduces the likelihood of future sexual aggression," she said. As part of her ongoing research, she has created a revised version of the strategies—and related instructions—that's designed to be more inclusive of all college students regardless of sexual orientation or gender identity.

BROADENING PREVENTION

Targeting individual behavior runs up against inherent limits, said Bill Flack, PhD, professor of psychology at Bucknell University in Lewisburg, Pennsylvania, who studies gender-based violence in higher education. "My preference, and the preference of a lot of people working in this area, is increasingly to view this problem using an ecological model—to take more of a community psychology approach," he said.

For instance, Flack said, it can be daunting for a student to intervene in a worrisome scenario if they feel like they are swimming upstream against a larger community, such as if the potential aggressor is a teammate or another brother in their fra-

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Administrators are making progress on responding to campus activists, such as at the University of Nebraska–Lincoln when they suspended the fraternity where an alleged assault took place that led to protests on campus.

FRANCIS GARDLER/LINCOLN JOURNAL STAR VIA AP

ternity. "There are pressures that are inherent in group membership that can be very difficult to stand up against," he said.

When sexual violence does occur, campuses often can provide not just the support of a counseling center but also an advocacy service to assist victims who may be interested in reporting the encounter. At Lehigh University in Bethlehem, Pennsylvania, roughly a dozen staff advocates are available in person or through a 24-7 hotline for students coping not just with sexual assault but also with a range of other violent behaviors, including intimate partner abuse and stalking, said Brooke DeSipio, PhD, director of Lehigh's Office of Gender Violence Education and Support. Their training includes working with students who are lesbian, gay, bisexual, or transgender, as additional issues may be involved, she said.

For instance, a lesbian woman who has been assaulted by a cisgender man may be grappling both with the trauma of the violence itself as well as what that assault means in relationship to her sexual orientation. She may feel like her choice only to have sex with other women has been taken away from her by the assault, DeSipio said. "It can bring up lots of those identity pieces for students to work through."

In recent months, there have been signs on some campuses that administrators are trying to respond to a broader point being made by campus activists—that the institutional culture itself must change to better protect students. In October 2021, the University of Nebraska–Lincoln reported that the fraternity where the alleged assault that led to protests on campus took place had been suspended through 2026. The following month, Virginia Tech's president announced the creation of a 21-member Sexual Violence Culture and Climate Work Group in an effort "to enhance" the university's prevention efforts. The recent episodes of sexual violence and misconduct "strike at the heart of the learning community we aspire to be and defy the core values that guide our strategic vision," Virginia Tech President Tim Sands was quoted as saying in a November 2021 press release about the work group's formation.

In the past few years, research and prevention efforts have been somewhat stymied by a lack of commitment to the issue by the Trump administration as well as the pandemic's lockdown constraints, said Kevin Swartout, PhD, a professor of psychology and public health at Georgia State University, who also served on the advisory committee that developed a 2019 APA resolution on campus sexual assault.

But prevention efforts have shifted back into gear, and the best results will be achieved by intervening on multiple tracks, Swartout said. "More and more, you are seeing the development of programs that are targeting multiple levels of the social ecology," he said.

Even as of early 2022, it's likely too soon to know the extent of the sexual violence that students have experienced since they returned to an in-person environment, DeSipio said.

"It is very rare that students will report immediately following the incident," she said. "It's normally a couple of months after when they realize that it is having an impact on them and they're not able to manage it themselves and need some additional help and support." ■

6 QUESTIONS FOR LAURA HELMUTH

As the editor in chief of *Scientific American*, Laura Helmuth is expanding the magazine's coverage of psychology, which has become increasingly vital for scientists and readers alike during the pandemic **BY HELEN SANTORO**

Over the past 25 years, cognitive neuroscientist Laura Helmuth, PhD, has covered a wide range of science stories for publications including *National Geographic*, *Slate*, and *Smithsonian*. For 4 of those years, she served as health and science editor at *The Washington Post*, where she led a team of 13 reporters and editors as they tackled complicated stories about the anti-vaccine movement, measles outbreaks in Minneapolis, and more.

Now as the editor in chief of *Scientific American*, she aims to further expand the publication's coverage of psychology as we weather the pandemic, which has upended lives and forced people to deal with extreme levels of adversity. The *Monitor* spoke with her about how her psychology training guides and enhances her work.

As editor in chief of *Scientific American*, how have you used your cognitive neuroscience training to bridge the gap between the natural sciences and social sciences?

Having a background in psychology is excellent preparation for any kind of journalism, and definitely for science journalism. Because fundamentally, whether it's physics or psychology or anthropology, understanding the basic approach of having questions, evaluating evidence, sharing your work with your peers—all those things are common across any field of science. Psychology in particular is so versatile and so open to many levels of analysis. A psychology degree is really good preparation for understanding lots of fields of science.

One of the ways my psychology background is useful is in understanding our audience, and when we look at what subjects people like to read about, they're really interested in psychology. Especially during the pandemic, we're seeing a lot of interest in understanding how human behavior, human beliefs, and human biases are having a huge influence on how the virus travels through the world.



SCOTT SUCHMAN

In many cases, natural sciences are taken more seriously than social sciences. What are your thoughts on the different impacts of these fields?

It's a shame that there is this bias, and it's ill-informed. It's all a continuum, and frankly, the most interesting work tends to be done at the intersections. Looking across those boundaries is a good way for somebody early in their career to look for interesting questions.

There are a lot of reasons why psychology is such a popular college major, and part of it is that it's addressing important and interesting questions about the world. Also, the range is just spectacular; you can study everything from synapses and neurotransmitters to neurodegenerative diseases and bonding and misinformation—all these things that have personal or societal relevance.

Psychologists continue to talk about the field's reproducibility crisis. How do you account for this crisis when deciding which psychology studies to cover?

That's something that journalists really need to reckon with, and they're trying to, but it's a really hard problem. One of the things that I tell classes I speak to or early career researchers I meet is that just because something is published in *Science* or *Nature* doesn't mean that it's actually true.

The field is getting away from covering single studies. We still use single studies as pegs, but instead of just "Here's this study in *Nature*; it said this shocking, amazing thing, the end," there is a trend toward using one study to show how the field is evolving or how the study is part of a new trend in the field. And science journalists, especially more experienced ones, are also more aware that sometimes the story should be: "Here is this study that is getting a lot of attention, but other experts

in the field are very wary of these findings and don't expect them to replicate."

How do you think *Scientific American* has influenced readers' awareness of psychology?

We run psychology news stories, we run opinion pieces and feature stories, and we have a stand-alone magazine called *Mind* (which is online only, focusing on psychology), and then we have a regular column written by psychologists called Mind Matters. We're about to add Mind Matters to our print magazine.

It's hard to measure impact, but if we look at what stories people read and what stories they share on social media, it seems like psychology is very popular and people really want to understand the research behind psychology.

Are today's younger researchers more interested in having their research published in popular media or *Scientific American* versus traditional journals?

There used to be a time where people were embarrassed to write for the public or thought that they would be shunned for it or not taken as seriously. So, there was a phenomenon of early career scientists writing blogs under pseudonyms because they were warned, "You'll never get tenure, or you'll never get a job" if, as a postdoc, you write a blog under your own name.

Today, there is more recognition that it's important to talk to the public, to demystify science—that there is a certain obligation that if you learn something about the world you need to share it. That's partly a generational shift and partly a growing awareness, certainly during the Trump administration, that scientists need to be part of the public conversation.

What are your goals for psychology coverage moving forward?

Since I've started, we've been expanding our coverage of social science and psychology. Part of that is because of the pandemic. We're living through the biggest psychological experiment in human history, with people changing their behaviors, changing their travel patterns, and [changing] how children are educated.

But we're also increasingly being up front and explicit that part of our mission is to advance social justice. A lot of that is psychological phenomena—understanding how to break down biases, see their repercussions on people's lives, see the impact of structural racism on health.

And one of the things we specialize in is sheer discovery—understanding how the mind works, how we remember things, how we see and perceive things. There's a big opportunity that other publications are missing by not covering psychology closely, or by only covering the flashy things. It's a niche that isn't very well filled. ■

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ARE LAWS GOVERNING SEX-BASED DISCRIMINATION IN SCHOOLS CONSISTENT WITH RESEARCH?

Another round of revisions to Title IX regulations is underway. Will the changes benefit students?

BY MARC W. PEARCE, JD, PHD, AND MEAGAN COUNLEY, UNIVERSITY OF NEBRASKA–LINCOLN

The U.S. Department of Education has announced plans to change regulations governing the actions schools must take to respond to complaints of sexual harassment, alter the definition of sexual harassment, and emphasize that sexual orientation and gender identity are included in the scope of Title IX, the civil rights law prohibiting sex-based discrimination in public schools.

These upcoming amendments are the latest in a series of revisions to Title IX regulations in recent years. Trump-era regulations that took effect in 2020 narrowed the definition of sexual harassment, imposed more stringent standards for finding institutional liability for mishandling sexual misconduct complaints, required higher education institutions to hold live hearings with cross-examination, and limited Title IX jurisdiction to incidents that occurred within an institution's educational programs or activities.

The Trump regulations were themselves largely a reaction to procedural changes instituted during the Obama administration that required colleges to use a "preponderance of the evidence" standard that lowered the burden of proof in sexual assault cases, which in many instances made it easier to establish violations of sexual assault, granted accusers appeal rights if the accused was initially found not responsible, and discouraged cross-examination of accusers.

Trump-era regulations allowed colleges to adopt a more stringent standard of proof, barred anonymous complaints, and—one of the more controversial changes—barred any statements from being considered if the source was not cross-examined in a hearing. In July 2021, a federal court in Massachusetts determined that this last regulation was "arbitrary and capricious" and vacated it. The impact of that decision was nationwide: Decision-makers may now consider statements even if the party or witness does not participate in the hearing or submit to cross-examination.



AT ISSUE

How can Title IX regulations best serve students?

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

Against the backdrop of swiftly changing procedural rules, researchers have sought to determine how the Title IX process could best serve students. For example, in 2018 Kathryn Holland, PhD, and colleagues called into question assumptions that mandatory reporting of sexual assault is beneficial because it brings more cases to light, helps connect survivors to support, simplifies training for university employees, and helps ensure Title IX compliance. In 2017, Holland and Lilia M. Cortina, PhD, identified reasons why undergraduate women who experienced sexual assault did not use campus support resources, including accessibility issues; thoughts, beliefs, and affective responses that made it seem unacceptable to use support; lack of faith in campus support; and alternative coping mechanisms, such as using a personal source of support or ignoring the assault.

Despite the regulation's requirement that institutions provide supportive measures regardless of whether a formal complaint is filed, real and perceived barriers still exist. In addition, Holland and Cortina concluded that certain policy choices made by colleges can inadvertently deter students from interacting with the Title IX process.

Psychologists have also developed a treatment program for students found responsible for sexual misconduct. But here, too, the effectiveness of such interventions can be hampered by policy decisions at both the federal and university levels, particularly rules governing privacy.

The regulatory changes provide psychologists with an excellent opportunity to influence policy. There will be a comment period during which the Department of Education will solicit feedback on the proposed regulations. Psychologists who conduct research on the impact that the Title IX process has on students have valuable input to share. ■

CE

CONTINUING EDUCATION TALKING TO PATIENTS ABOUT FIREARM SAFETY

BY ZARA ABRAMS

Derek* was obstinate—even hostile—when a clinician first asked how he stored his firearms. A member of the Mississippi National Guard who owned several guns, Derek was participating in Project Safe Guard, a randomized controlled trial testing safe storage and counseling for firearm suicide prevention (Anestis, M. D., et al., *American Journal of Public Health*, Vol. 111, No. 2, 2021).



CE credits: 1

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

1. Discuss the reasons for firearm ownership and the risks firearms pose for patients and their families.

2. Describe several methods of enhancing firearm safety as well as strategies for approaching the topic with a patient.

3. Explain what legal channels are available to reduce access to firearms if involuntary intervention is needed.

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

*Name changed to protect patient privacy.

Three months later, his answer was the same: "I am not suicidal, I never will be, and even if I was, none of this would make a difference." His clinician listened, thanked him for his honesty, and stuck to Project Safe Guard's motivational interviewing protocols.

But by Derek's next appointment, things had changed. He had split with his fiancée and started having thoughts of suicide. Remembering his counseling sessions, he gave his firearms to his brother for safekeeping. Derek later reported that this action likely saved his life.

In 2021, firearms caused more than 44,000 U.S. deaths—including suicides, homicides, and accidents—and 40,000 injuries, according to the nonprofit Gun Violence Archive. One in three U.S. households has at least one firearm, millions of which are stored loaded and unlocked (Azrael, D., et al., *Journal of Urban Health*, Vol. 95, 2018). And the COVID-19 pandemic spurred a surge in firearm purchasing that is unparalleled in U.S. history: Sales rose an estimated 40% between 2019 and 2020 (FBI, National Instant Criminal Background Check System).

But clinicians, including mental health care providers, often hesitate to discuss firearm safety with their patients because "they worry the conversation will ruin rapport—or veer into political territory and go off the rails," said clinical psychologist Michael Anestis, PhD, an associate professor in the Rutgers University School of Public Health, director of the New Jersey Gun Violence Research Center, and a leader of Project Safe Guard. "But these conversations are often friendly—and even the rare ones that aren't can still make a difference."

Providers can help reduce injuries and deaths by talking with patients about safe storage and temporary transfers during high-risk periods—for example, if a patient is having thoughts of suicide. But those conversations need to be rational, nonpolitical, and focus on harm reduction, said Amy Barnhorst, MD, an associate clinical professor of psychiatry and behavioral sciences and vice chair of community mental health at the University of California, Davis.

"Firearm ownership may be a core aspect of a patient's identity, so it's important to approach these conversations in a nonstigmatizing way," said Barnhorst, who also directs the BulletPoints project, a state-funded effort that creates and disseminates clinical tools for firearm injury prevention.

That requires providers to be knowledgeable about firearm ownership and storage and to make informed, tailored recommendations through a collaborative process. In some cases, they can also use legal protections to temporarily separate patients from their firearms.

"Everybody can get behind the idea that we would like less people dying from firearm-related injuries," said

LOVEMELOVEMYPIC/GETTY IMAGES

Patrick Carter, MD, codirector of the Institute for Firearm Injury Prevention at the University of Michigan. "How can we honor patients' values but also keep them safer?"

CRITICAL MOMENTS FOR INTERVENTION

As gun ownership increases, demographics are also shifting: First-time buyers are more likely to be women or people of color than in the past (Miller, M., et al., *Annals of Internal Medicine,* 2022). Nearly two thirds of firearm owners say self-protection is a primary reason for ownership; other reasons include hunting, sporting, and collection (Azrael, D., et al., *RSF: The Russell Sage Foundation Journal of the Social Sciences*, Vol. 3, No. 5, 2017).

Though public mass shootings receive a lot of attention, they represent less than 1% of firearm deaths in the United States. Suicides, on the other hand, account for 57% of firearm deaths since 2019, according to the Gun Violence Archive. One reason is that guns are highly lethal. Only about 4% of all suicide attempts result in death; when a gun is used, 90% of attempts are fatal ("Facts About Suicide," U.S. Centers for Disease Control and Prevention, 2021; Conner, A., et al., *Annals of Internal Medicine*, Vol. 171, No. 12, 2019).

"We know people will feel hopeless and attempt suicide sometimes," said clinical psychologist Susan B. Sorenson, PhD, a professor of social policy and health and societies at the University of Pennsylvania. "But if someone attempts suicide with a gun, they rarely get a second chance at life."



GWOLTERS/SHUTTERSTOCK

People who purchased firearms during the 2020 surge, especially first-time buyers, are also more likely to have had suicidal thoughts over the past month, past year, and during their lives than other firearm owners or non-firearm owners, Anestis and his colleagues found (*American Journal of Preventive Medicine,* Vol. 60, No. 3, 2021; *JAMA Network Open*, Vol. 4, No. 10, 2021). That does not necessarily mean firearms were purchased with suicidal intent, Anestis said, but it is still a cause for concern.

"Historically, firearm access is not related to suicidal thoughts, but this cohort appears to be different," he said. "This means that the risk profile for many homes is fundamentally different now."

Suicidality also plays an outsize role in mass shootings, especially when attackers leak their plans beforehand, according to data from The Violence Project, a nonprofit think tank that has studied 168 mass shootings since 1966. Nearly 3 in 4 shooters in the database were suicidal before or during their attack (Peterson, J., & Densley, J.,*The Violence Project: How to Stop a Mass Shooting Epidemic,* Abrams Press, 2021), which may provide clues about how to prevent future shooting sprees.

One in three U.S. households has at least one firearm, millions of which are stored loaded and unlocked.

For example, if a teenager says, "I want to shoot up the school tomorrow," we hear a scary, violent threat, said psychologist Jillian Peterson, PhD, an associate professor of criminology and criminal justice at Hamline University in St. Paul, Minnesota, and cofounder of The Violence Project.

"But we also know that most shooters who do this tend to commit suicide during the attack. So, if we actually hear that more as 'I don't care if I live or die tomorrow,' it launches a very different kind of response," she said.

Rather than initiating a punitive process, schools can treat such threats as critical moments for mental health intervention, Peterson said. Clinicians can also watch for warning signs that a patient may be planning an attack during the course of treatment. The Violence Project has identified several features and behaviors that tend to precede mass shootings, including significant early childhood trauma, a history of violence, a marked change in behavior, and interest in past shooters or attacks.

Though media reports often imply that serious mental illness (SMI) is a primary driver of such violence, the relationship is weaker than some might think, Barnhorst said. Data do show that people with SMI—including schizophrenia, bipolar disorder, major depressive disorder, or severe post-traumatic stress disorder—are more likely to enact violence during the onset of a psychotic illness or during the period surrounding psychiatric hospitalization. But other factors play a much bigger role. For instance, whereas a person with SMI is 2.4 times more likely to enact violence than someone without SMI, a person with a problematic drinking history is 6.8 times more likely to enact violence than someone without that history (Swanson, J. W., "Mental Disorder, Substance Abuse, and Community Violence: An Epidemiological Approach," in Monahan, J., & Steadman, H. J. (Eds.), Violence and Mental Disorder, University of Chicago Press, 1994).

Of course, the vast majority of firearm homicides are not part of mass shootings; domestic and gang violence are more common. Intimate partner firearm violence in particular is a key target for clinical intervention, Sorenson said—for instance, if a patient reports being threatened with a gun by their partner. (Legal protection may be less feasible at an early stage because many domestic violence laws require physical evidence, such as documentation of an injury, in order for an arrest to be made at the scene.)

"Firearms play a unique role in domestic violence, because someone who displays a gun can get their partner to do something without ever touching them," Sorenson said.

Providers can help reduce injuries and deaths by talking with patients about safe storage and temporary transfers during high-risk periods.

RESOURCES

What mental health clinicians can do to reduce firearm violence and suicide (on-demand webinar)
Barnhorst, A.
APA, 2021

Consensus-driven priorities for firearm injury education among medical professionals
Hoops, K., et al.
Academic Medicine, 2022

Prevention of firearm injuries among children and adolescents: Consensus-driven research agenda from the Firearm Safety Among Children and Teens (FACTS) Consortium
Cunningham, R. M., et al.
JAMA Pediatrics, 2019



DRAŽEN ZIGIC/GETTY IMAGES

DIRECT QUESTIONS ABOUT SAFETY AND RISK

Clinicians who shy away from discussing firearm safety often do so because they are worried about alienating their patients. But research suggests that most patients find it appropriate for a therapist or other health care provider to initiate conversations about firearms (Wintemute, G. J., et al., *Annals of Internal Medicine*, Vol. 165, No. 3, 2016; Pallin, R., et al., *Behavioral Science & the Law*, Vol. 37, 2019). This is especially true if someone in the home is at increased risk of death or injury, including if a patient is having thoughts of suicide; if a patient



experiences periods of impaired judgment because of SMI, substance misuse, or dementia; or if children or teens live in the home.

"These cases are pretty straightforward because you have a clear clinical justification for asking questions about firearms in the home and for instructing people to secure them," said Brian Stagner, PhD, an emeritus clinical professor of psychological and brain sciences at Texas A&M University and director of professional affairs for the Texas Psychological Association.

Psychologists diverge on the question of universal screening. On the one hand, a blanket question about firearm ownership may elicit pushback from some gun owners if there is no clear risk, Stagner said. But others point out that the question may be better received as part of larger conversations about family safety (cars, swimming pools) or suicide (medication, sharp objects) and can help people make a plan before a crisis occurs.

"Clinicians should also know that there are no state or federal statutes that prohibit them from talking with patients about access to firearms," Barnhorst said. (A Florida law that attempted to curtail such conversations was overturned in 2017 because it violated clinicians' First Amendment rights.)

Before approaching patients, providers should develop basic knowledge about firearms so that they can speak confidently and use appropriate language. (BulletPoints offers online educational resources on firearms, storage, and various clinical scenarios.) They should then work with patients to find a risk reduction approach that works for them. An individual who uses firearms primarily for hunting or target shooting may be open to storing them outside the home, but that option may be impractical for someone who owns a gun for self-protection.

For many gun owners, safe storage and temporary transfers are the most effective ways to reduce risk. The safest way to store a firearm is unloaded, locked (using a device such as a gun lock or safe), and separated from ammunition. Keys or combinations to the locking device should also be safeguarded. Biometric lockboxes, which are typically opened using a fingerprint, may be the best storage option for owners who want quick access to a loaded firearm.

Temporarily transferring firearms to a trusted person or establishment—such as a local gun range, gun shop, or law enforcement agency—can be helpful during a crisis, for example, if a patient or family member is having thoughts of suicide. Providers should familiarize themselves with local background check requirements before suggesting that a patient transfers firearms to a friend or family

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member. For example, California allows temporary transfers without a background check if a gun owner is feeling suicidal (Section 27882, California Penal Code). Increasingly, states (including Colorado, Washington, Maryland, New Jersey, and Mississippi) are providing online maps that identify gun shops and other establishments that will temporarily hold firearms, an option that may feel palatable to gun owners.

One approach to these conversations is a focus on family safety, said Barnhorst. For example: "You have a teenager at home with depression, and I really worry about access to your guns. Can you tell me how you store them and we can brainstorm some solutions?"

Parents who do not own firearms may be unlikely to have considered the risk of shooting accidents when their child or teenager visits another home for a playdate or a sleepover, so counseling them about safety is also important, said Carter, who is part of the leadership team for the Firearm Safety Among Children and Teens Consortium.

For example, a parent might take the onus onto themselves when speaking with another parent or a family member: "My child is very curious and does a lot of exploring. I just want to make sure there are not any unsecured firearms in your home, because I would hate for an accident to happen."

If a patient is feeling suicidal, Barnhorst recommends something along the lines of: "I see many patients with guns at home. Sometimes when someone is going through a hard time, they store their guns elsewhere, such as with a friend or at a gun store. This is just temporary until they feel better. Would you be willing to consider this?"

Motivational interviewing principles, which inform Project Safe Guard, can be helpful if a clinician anticipates pushback. Rather than entering the conversation as an expert providing instruction, said Anestis, ask the patient some questions: "Tell me about your firearms: How do you store them? Why do you choose to store them that way? Can you think of any scenarios where it might be beneficial to store them differently?" If a patient hints at a willingness to change their behavior, lean into that inclination.

"This work is often about planting seeds, not picking flowers. You don't get an immediate payoff," Anestis said. "But if you do this right, when the time comes, what you get is the outcome you're looking for."

KEY POINTS

1

The majority of firearm deaths in the United States each year are suicides.

2

Clinicians can help reduce firearm suicides, homicides, and accidents by talking with patients about safe storage and temporary transfers in high-risk situations.

3

Several legal channels are available to briefly separate patients from their firearms during a crisis.

REACHING HIGHEST RISK PATIENTS

In some cases, a patient may be at high risk for violence or suicide and unwilling to collaborate with their provider. Involuntary intervention may be necessary at this point to prevent harm.

Long-standing mental health–related prohibitions, namely the federal Gun Control Act of 1968 and similar state-level policies, are blunt tools that tend to miss those at highest risk, Barnhorst said. The federal law prohibits firearm ownership by convicted felons, those subject to some domestic violence restraining orders or convicted of domestic violence crimes, and people who have been involuntarily admitted to a psychiatric hospital.

Most states have "duty to warn" laws that require mental health practitioners to alert law enforcement officials and/or potential victims if a patient makes an explicit threat of violence. Providers can also initiate emergency psychiatric hospitalization for patients who need immediate mental health care, typically for a period of 72 hours (Hedman, L. C., et al., *Psychiatric Services*, Vol. 67, No. 5, 2016).

But these statutes have left clinicians and authorities powerless to prevent some types of crises. In April 2014, a young man living in Isla Vista, California, made disturbing posts online that prompted his mother to contact his therapist, who reported the behavior to local law enforcement. Sheriff's deputies visited his apartment but could not conduct a search or confiscate firearms because the man had not committed a crime. Less than a month later, he killed six people and injured 14 others.

In response to the Isla Vista killings, Barnhorst helped develop a California law that allows family members or police officers concerned about imminent violence to petition a court to temporarily confiscate a person's firearms. Eighteen other states and the District of Columbia now have similar laws, known as "red flag" laws or extreme risk protection orders (ERPOs). In some states, clinicians, employers, and school officials can also petition courts. Connecting with local law enforcement is a good way for clinicians to learn about their state's ERPO laws, Barnhorst said.

Though it is not possible to infer causality, research suggests that California's law helped prevent at least 21 mass shootings between 2016 and 2018 (Wintemute, G. J., et al., *Annals of Internal Medicine*, Vol. 171, No. 9, 2019). ERPOs also appear to have utility for suicide prevention. In the 10 years following the enactment of an ERPO law in Indiana, firearm suicides decreased by 7.5% (Kivisto, A. J., & Phalen, P. L., *Psychiatric Services,* Vol. 69, No. 8, 2018).

A restraining or protective order is typically the best option for domestic violence threats, Sorenson said, because federal law prohibits those subject to such an order from purchasing or possessing a firearm. Providers can help patients with safety planning and connect them with local domestic violence agencies for additional support. If a patient is not ready to take action, Sorenson recommends underscoring how quickly firearm threats can escalate and working with the patient to determine what circumstances would prompt them to seek a restraining order.

"Clinicians should create and reinforce the assumption that action will probably need to be taken at some point," she said.

FIREARM DEATHS BY INTENT: 2021

54%
Suicide

42%
Homicide

4%
Unintentional

Total: 44,838

Source: Gun Violence Archive

During any conversation about firearms, clinicians should keep in mind their patients' reasons for ownership, where they fall on the safety spectrum, and how to reduce harm while still respecting their values, Carter said.

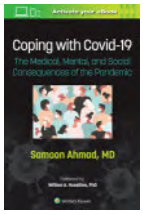
"If we approach it in that way, we avoid potential points of disagreement and we stay aligned with the science," he said. "That's really where our focus should be." ■

Psychologists who have concerns about potentially dangerous clients should schedule a consult with their malpractice carrier. APA members may also contact praclegal@apa.org for a consultation and other resources.

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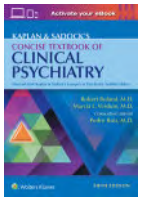


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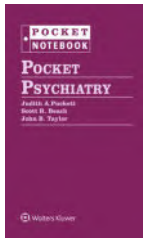


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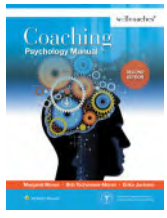


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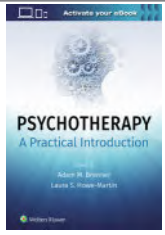


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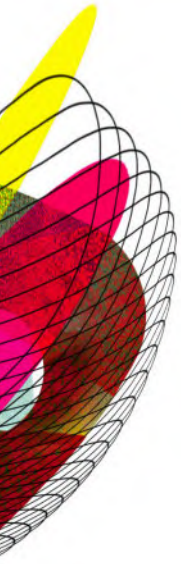
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THE SCIENCE BEHIND CREATIVITY

Psychologists and neuroscientists are exploring where creativity comes from and how to increase your own

BY KIRSTEN WEIR

Paul Seli, PhD, is falling asleep. As he nods off, a sleep-tracking glove called Dormio, developed by scientists at the Massachusetts Institute of Technology, detects his nascent sleep state and jars him awake. Pulled back from the brink, he jots down the artistic ideas that came to him during those semilucid moments.

Seli is an assistant professor of psychology and neuroscience at the Duke Institute for Brain Sciences and also an artist. He uses Dormio to tap into the world of hypnagogia, the transitional state that exists at the boundary between wakefulness and sleep. In a mini-experiment, he created a series of paintings inspired by ideas plucked from his hypnagogic state and another series from ideas that came to him during waking hours. Then he asked friends to rate how creative the paintings were, without telling them which were which. They judged the hypnagogic paintings as significantly more creative. "In dream states, we seem to be able to link things together that we normally wouldn't connect," Seli said. "It's like there's an artist in my brain that I get to know through hypnagogia."

The experiment is one of many novel—and, yes, creative—ways that psychologists are studying the science of creativity. At an individual level, creativity can lead to personal fulfillment and positive academic and professional outcomes, and even be therapeutic. People take pleasure in creative thoughts, research suggests—even if they don't think of themselves as especially creative. Beyond those individual benefits, creativity is an endeavor with implications for society, said Jonathan Schooler, PhD, a professor of psychological and brain sciences at the University of California, Santa Barbara. "Creativity is at the core of innovation. We rely on innovation for advancing humanity, as well as for pleasure and entertainment," he said. "Creativity underlies so much of what humans value."

"IN DREAM STATES, WE SEEM TO BE ABLE TO LINK THINGS TOGETHER THAT WE NORMALLY WOULDN'T CONNECT."

PAUL SELI
DUKE INSTITUTE FOR BRAIN SCIENCES

Architect Frank Gehry's creativity is on display in his design for the Stata Center at the Massachusetts Institute of Technology.



APCORTIZAS/ISTOCK; PREVIOUS PAGES: BRIAN STAUFFER/ISTOCK

In 1950, J. P. Guilford, PhD, then president of APA, laid out his vision for the psychological study of creativity (*American Psychologist*, Vol. 5, No. 9, 1950). For half a century, researchers added to the scientific understanding of creativity incrementally, said John Kounios, PhD, an experimental psychologist who studies creativity and insight at Drexel University in Philadelphia. Much of that research focused on the personality traits linked to creativity and the cognitive aspects of the creative process.

But in the 21st century, the field has blossomed thanks to new advances in neuroimaging. "It's become a tsunami of people studying creativity," Kounios said. Psychologists and neuroscientists are uncovering new details about what it means to be creative and how to nurture that skill. "Creativity is of incredible real-world value," Kounios said. "The ultimate goal is to figure out how to enhance it in a systematic way."

CREATIVITY IN THE BRAIN

What, exactly, is creativity? The standard definition used by researchers characterizes creative ideas as those that are original and effective, as described by psychologist Mark A. Runco, PhD, director of creativity research and programming at Southern Oregon University *(Creativity Research Journal*, Vol. 24, No. 1, 2012). But effectiveness, also called utility, is a slippery concept. Is a poem useful? What makes a sculpture effective? "Most researchers use some form of this definition, but most of us are also dissatisfied with it," Kounios said.

Runco is working on an updated definition and has considered at least a dozen suggestions from colleagues for new components to consider. One frequently suggested feature is authenticity. "Creativity involves an honest expression," he said.

Meanwhile, scientists are also struggling with the best way

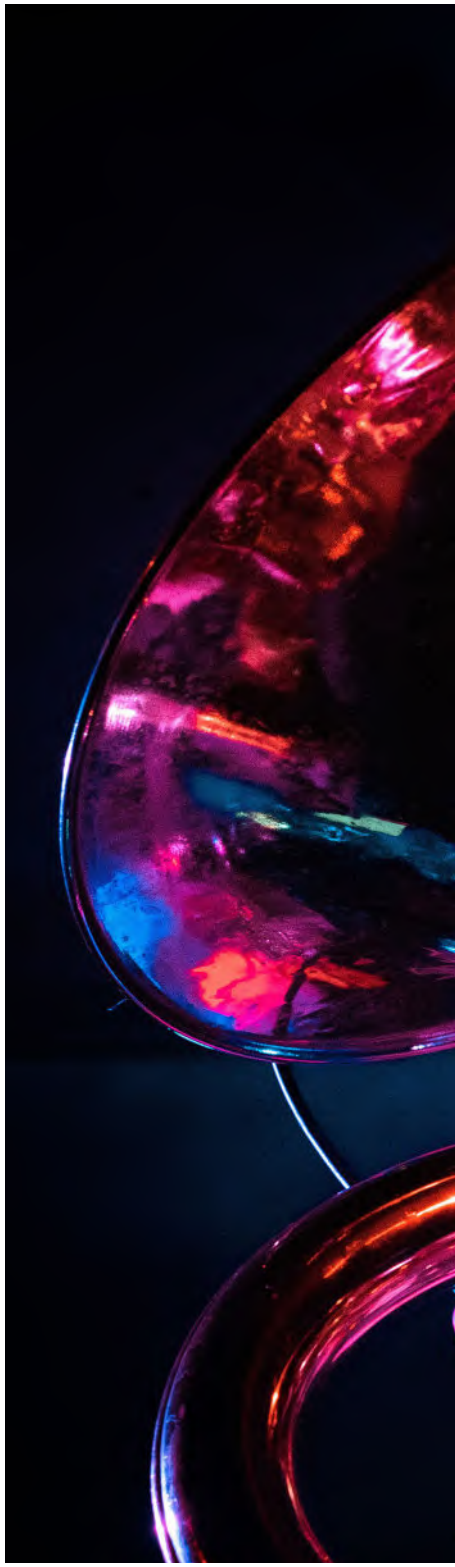
to measure the concept. As a marker of creativity, researchers often measure divergent thinking—the ability to generate a lot of possible solutions to a problem or question. The standard test of divergent thinking came from Guilford himself. Known as the alternate-uses test, the task asks participants to come up with novel uses for a common object such as a brick. But measures of divergent thinking haven't been found to correlate well with real-world creativity. Does coming up with new uses for a brick imply a person will be good at abstract art or composing music or devising new methods for studying the brain? "It strikes me as using way too broad a brush," Seli said. "I don't think we measure creativity in the standard way that people think about creativity. As researchers, we need to be very clear about what we mean."

One way to do that may be to move away from defining creativity based on a person's creative output and focus instead on what's going on in the brain, said Adam Green, PhD, a cognitive neuroscientist at Georgetown University and founder of the Society for the Neuroscience of Creativity. "The standard definition, that creativity is novel and useful, is a description of a product," he noted. "By looking inward, we can see the process in action and start to identify the characteristics of creative thought. Neuroimaging is helping to shift the focus from creative product to creative process."

That process seems to involve the coupling of disparate brain regions. Specifically, creativity often involves coordination between the cognitive control network, which is involved in executive functions such as planning and problem-solving, and the default mode network, which is most active during mind-wandering or daydreaming (Beaty, R. E., et al., *Cerebral Cortex*, Vol. 31, No. 10, 2021). The cooperation of those networks may be a unique feature of creativity, Green said. "These two systems are usually antagonistic. They rarely work together, but creativity seems to be one instance where they do."

Green has also found evidence that an area called the frontopolar cortex, in the brain's frontal lobes, is associated with creative thinking. And stimulating the area seems to boost creative abilities. He and his colleagues used transcranial direct current stimulation (tDCS) to stimulate the frontopolar cortex of participants as they tried to come up with novel analogies. Stimulating the area led participants to make analogies that were more semantically distant from one another—in other words, more creative (*Cerebral Cortex*, Vol. 27, No. 4, 2017).

Green's work suggests that targeting specific areas in the brain, either with neuromodulation or cognitive interventions, could enhance creativity. Yet no one is suggesting that a single brain region, or even a single neural network, is responsible for creative thought. "Creativity is not one system but many different mechanisms that, under ideal circumstances, work together in a seamless way," Kounios said.



Tubaist Theon Cross performs with the British jazz group Sons of Kemet. Research shows that experienced musicians' creativity is automatic and unconscious.



GUARDIAN / EYEVINE/REDUX

IN SEARCH OF THE EUREKA MOMENT

Creativity looks different from person to person. And even within one brain, there are different routes to a creative spark, Kounios explained. One involves what cognitive scientists call "System 1" (also called "Type 1") processes: quick, unconscious thoughts—aha moments—that burst into consciousness. A second route involves "System 2" processes: thinking that is slow, deliberate, and conscious. "Creativity can use one or the other or a combination of the two," he said. "You might use Type 1 thinking to generate ideas and Type 2 to critique and refine them."

Which pathway a person uses might depend, in part, on their expertise. Kounios and his colleagues used electroencephalography (EEG) to examine what was happening in jazz musicians' brains as they improvised on the piano. Then skilled jazz instructors rated those improvisations for creativity, and the researchers compared each musician's most creative compositions. They found that for highly experienced musicians, the mechanisms used to generate creative ideas were largely automatic and unconscious, and they came from the left posterior part of the brain. Less-experienced pianists drew on more analytical, deliberative brain processes in the right frontal region to devise creative melodies, as Kounios and colleagues described in a special issue of *NeuroImage* on the neuroscience of creativity (Vol. 213, 2020). "It seems there are at least two pathways to get from where you are to a creative idea," he said.

Designer Elisa Palomino created this unusual hair design for Madrid Fashion Week. Creative individuals are more likely to be open to new ideas and experiences.

> **"WE HAVE TO BE CAREFUL OF FALSE AHAS."**
>
> JONATHAN SCHOOLER
> UNIVERSITY OF CALIFORNIA, SANTA BARBARA



Coming up with an idea is only one part of the creative process. A painter needs to translate their vision to canvas. An inventor has to tinker with their concept to make a prototype that actually works. Still, the aha moment is an undeniably important component of the creative process. And science is beginning to illuminate those "lightbulb moments."

Kounios examined the relationship between creative insight and the brain's reward system by asking participants to solve anagrams in the lab. In people who were highly sensitive to rewards, a creative insight led to a burst of brain activity in the orbitofrontal cortex, the area of the brain that responds to basic pleasures like delicious food or addictive drugs (*NeuroImage*, Vol. 214, 2020). That neural reward may explain, from an evolutionary standpoint, why humans seem driven to create, he said. "We seem wired to take pleasure in creative thoughts. There are neural rewards for thinking in a creative fashion, and that may be adaptive for our species."

The rush you get from an aha moment might also signal that you're onto something good, Schooler said. He and his colleagues studied these flashes of insight among creative writers and physicists. They surveyed the participants daily for 2 weeks, asking them to note their creative ideas and when they occurred. Participants reported that about a fifth of the most important ideas of the day happened when they were mind-wandering and not working on a task at hand (*Psychological Science*, Vol. 30, No. 3, 2019). "These solutions were more likely to be associated with an aha moment and often overcoming an impasse of some sort," Schooler said.

Six months later, the participants revisited those ideas and rated them for creative importance. This time, they rated their previous ideas as creative, but less important than they'd initially thought. That suggests that the spark of a eureka moment may not be a reliable clue that an idea has legs. "It seems like the aha experience may be a visceral marker of an important idea. But the aha experience can also inflate the meaningfulness of

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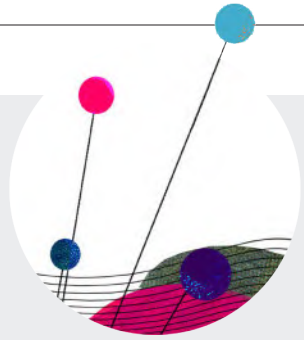
an idea that doesn't have merit," Schooler said. "We have to be careful of false ahas."

BOOSTING YOUR CREATIVITY

Much of the research in this realm has focused on creativity as a trait. Indeed, some people are naturally more creative than others. Creative individuals are more likely than others to possess the personality trait of openness. "Across different age groups, the best predictor of creativity is openness to new experiences," said Anna Abraham, PhD, the E. Paul Torrance Professor and director of the Torrance Center for Creativity and Talent Development at the University of Georgia. "Creative people have the kind of curiosity that draws them toward learning new things and experiencing the world in new ways," she said.

We can't all be Thomas Edison or Maya Angelou. But creativity is also a state, and anyone can push themselves to be more creative. "Creativity is human capacity, and there's always room for growth," Runco said. A tolerant environment is often a necessary ingredient, he added. "Tolerant societies allow individuals to express themselves and explore new things. And as a parent or a teacher, you can model that creativity is valued and be open-minded when your child gives an answer you didn't expect."

One way to let your own creativity flow may be by tapping into your untethered mind. Seli is attempting to do so through his studies on hypnagogia. After pilot testing the idea on himself, he's now working on a study that



HOW TO BECOME MORE CREATIVE

1. **PUT IN THE WORK** | People often think of creativity as a bolt of inspiration, like a lightbulb clicking on. But being creative in a particular domain—whether in the arts, in your work, or in your day-to-day life—is a skill. Carve out time to learn and practice.

2. **LET YOUR MIND WANDER** | Experts recommend "daydreaming with purpose." Make opportunities to let your daydreams flow, while gently nudging them toward the creative challenge at hand. Some research suggests meditation may help people develop the habit of purposeful daydreaming.

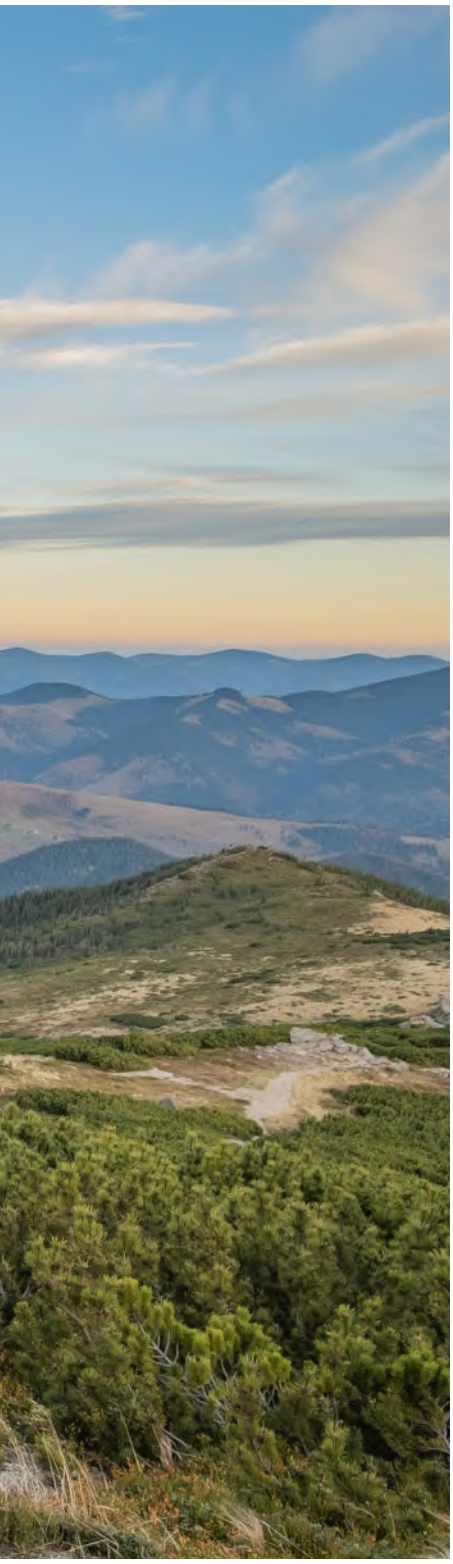
3. **PRACTICE REMOTE ASSOCIATIONS** | Brainstorm ideas, jotting down whatever thoughts or notions come to you, no matter how wild. You can always edit later.

4. **GO OUTSIDE** | Spending time in nature and wide-open spaces can expand your attention, enhance beneficial mind-wandering, and boost creativity.

5. **REVISIT YOUR CREATIVE IDEAS** | Aha moments can give you a high—but that rush might make you overestimate the merit of a creative idea. Don't be afraid to revisit ideas to critique and tweak them later.



BILANOL/ISTOCK



uses the sleep-tracking glove to explore creativity in a group of Duke undergrads. "In dream states, there seems to be connectivity between disparate ideas. You tend to link things together you normally wouldn't, and this should lead to novel outcomes," he said. "Neurally speaking, the idea is to increase connectivity between different areas of the brain."

You don't have to be asleep to forge those creative connections. Mind-wandering can also let the ideas flow. "Letting yourself daydream with a purpose, on a regular basis, might allow brain networks that don't usually cooperate to literally form stronger connections," Green said.

However, not all types of daydreams will get you there. Schooler found that people who engage in more personally meaningful daydreams (such as fantasizing about a future vacation or career change) report greater artistic achievement and more daily inspiration. People who are prone to fantastical daydreaming (such as inventing alternate realities or imaginary worlds) produced higher-quality creative writing in the lab and reported more daily creative behavior. But daydreams devoted to planning or problem-solving were not associated with creative behaviors (*Psychology of Aesthetics, Creativity, and the Arts*, Vol. 15, No. 4, 2021).

It's not just what you think about when you daydream, but where you are when you do it. Some research suggests spending time in nature can enhance creativity. That may be because of the natural world's ability to restore attention, or perhaps it's due to the tendency to let your mind wander when you're in the great outdoors (Williams, K. J. H., et al., *Journal of Environmental Psychology*, Vol. 59, 2018). "A lot of creative figures go on walks in big, expansive environments. In a large space, your perceptual attention expands and your scope of thought also expands," Kounios said. "That's why working in a cubicle is bad for creativity. But working near a window can help."

Wherever you choose to do it, fostering creativity requires time and effort. "People want the booster shot for creativity. But creativity isn't something that comes magically. It's a skill, and as with any new skill, the more you practice, the better you get," Abraham said. In a not-yet-published study, she found three factors predicted peak originality in teenagers: openness to experience, intelligence, and, importantly, time spent engaged in creative hobbies. That is, taking the time to work on creative pursuits makes a difference. And the same is true for adults, she said. "Carve out time for yourself, figure out the conditions that are conducive to your creativity, and recognize that you need to keep pushing yourself. You won't get to where you want to go if you don't try."

Those efforts can benefit your own sense of creative fulfillment and perhaps lead to rewards on an even grander scale. "I think everyday creativity is the most important kind," Runco said. "If we can support the creativity of each and every individual, we'll change the world." ■

FURTHER READING

Creativity: An introduction
Kaufman, J. C., and Sternberg, R. J. (Eds.)
Cambridge University Press, 2021

The eureka factor: Aha moments, creative insight, and the brain
Kounios, J., & Beeman, M.
Random House, 2015

Creativity anxiety: Evidence for anxiety that is specific to creative thinking, from STEM to the arts
Daker, R. J., et al.
Journal of Experimental Psychology: General, 2020

Predictors of creativity in young people: Using frequentist and Bayesian approaches in estimating the importance of individual and contextual factors
Asquith, S. L., et al.
Psychology of Aesthetics, Creativity, and the Arts, 2020

Being in nature, wide-open places, or even near a window can boost creativity.

Feature

The Urgent Necessity for Paid Parental Leave

Psychologists' research shows why employers and policymakers need to more strongly consider paid parental leave, based on the significant benefits to the entire family

BY ZARA ABRAMS



Derek Rotondo, the lead plaintiff in a class-action lawsuit against JPMorgan Chase over parental leave, cares for his son Lincoln.



MADDIE MCGARVEY/THE NEW YORK TIMES/REDUX

The fight to provide U.S. parents with paid leave, now more than 100 years old, has stalled yet again. Despite widespread public support and strong evidence of its mental and physical health benefits, the United States remains one of just six countries worldwide that do not offer paid parental leave.

"We have this whole abundance of child development research about the importance of early attachment, but our policies aren't lining up with that," said Darby Saxbe, PhD, an associate professor of psychology at the University of Southern California who studies family environments and transitions.

President Biden's Build Back Better Act, passed by the U.S. House of Representatives in November 2021 but now stuck in the Senate, aims to provide 4 weeks of paid family leave to all U.S. employees. Without it, workers are guaranteed only unpaid leave—up to 12 weeks without losing their jobs—through the Family and Medical Leave Act (FMLA), passed in 1993.

But many people can't afford to take unpaid leave, and about 44% of U.S. workers don't even qualify for benefits through FMLA, which excludes smaller employers and many part-time workers (*Employee and Worksite Perspectives of the Family and Medical Leave Act*, Abt Associates, 2020). Nine states and the District of Columbia have established paid family leave programs, typically between 8 and 12 weeks.

Psychologists have built a key part of the multidisciplinary evidence base that shows how beneficial paid leave is for the physical health, mental well-being, and stability of the entire family. Now, psychologists are increasingly working to refine and disseminate those findings to make an impact on both policymakers and organizations.

"Paid parental leave can reduce financial stress, allow parents to focus on bonding with their child, and increase gender equality when fathers have more time to participate in child care duties," said psychologist Ashley Schappell D'Inverno, PhD, a behavioral scientist in the Division of Violence Prevention at the Centers for Disease Control and Prevention. "All of these positive effects trickle down to benefit the child and the family as a whole."

HEALTH BENEFITS OF PAID LEAVE

The transition to parenthood is a critical juncture that shapes adults' physical and mental health—including sleep changes, weight gain, hormonal shifts,



IAN C. BATES/THE NEW YORK TIMES/REDUX

Molly Moon's Homemade Ice Cream in Seattle offers employees 12 weeks of paid parental leave. Owner Molly Moon Neitzel believes it is both the right thing to do and also an important retention policy.



MONKEYBUSINESSIMAGES/GETTY IMAGES

Psychologists are studying how offering leave to fathers can benefit the whole family as well as give new insights into the "fathering brain."

and mood disorder risk—for years to come (Saxbe, D., et al., *American Psychologist*, Vol. 73, No. 9, 2018). Paid leave can help parents briefly shift their focus from earning income to bonding with their child and adapting to the demands of parenting.

Plenty of research shows that mothers fare better when they have paid time off after giving birth, including a 51% decrease in the risk of rehospitalization (Jou, J., et al., *Maternal and Child Health Journal*, Vol. 22, 2018). After Norway replaced its 12-week unpaid leave policy with 16 weeks of paid leave, many facets of new mothers' health improved, including blood pressure, pain levels, and exercise and smoking behaviors (Bütikofer, A., et al., *American Economic Journal: Economic Policy*, Vol. 13, No. 1, 2021).

"Even if it goes well, pregnancy and birth is a really serious event. It can be an assault on your body, and you need time to recover," said Tiffany Green, PhD, an economist and an assistant professor of population health sciences and obstetrics and gynecology at the University of Wisconsin–Madison.

Parental leave policies are also linked with better mental health. Women who aren't able to take as much time off—especially those who return to work in under 2 months—face more depressive symptoms and more marital and self-esteem problems (Bullinger, L. R., *Journal of Health Economics*, Vol. 66, 2019; Feldman, R., et al., *Journal of Applied Developmental Psychology*, Vol. 25, No. 4, 2004). Even 2 to 3 years later, women who took shorter maternity leaves report more psychological distress (Whitehouse, G., et al., *Journal of Family Issues*, Vol. 34, No. 10, 2013).

Research suggests that underprivileged families may benefit most from parental leave policies, starting with better birth outcomes, including fewer early term births, possibly owing to decreased stress during pregnancy (Stearns, J., *Journal of Health Economics*, Vol. 43, 2015).

MITIGATING CONSEQUENCES

HOW EMPLOYERS CAN SUPPORT LEAVE

In the workplace, women often face discrimination around pregnancy, motherhood, and maternity leave. Some employers even assume that women will take leave based solely on their age—and see this as a risk when hiring—in what psychologist Eden King, PhD, calls the "maybe baby" effect (Peterson Gloor, J. P., et al., *Journal of Applied Social Psychology*, 2021). But experts say offering leave to everyone can help reduce that type of discrimination and minimize career setbacks during the transition to parenthood.

Many women face a tough choice when it comes to maternity leave. On one hand, the research is clear that leave provides crucial time to heal and bond after birth. On the other hand, taking longer leaves can harm women's career progress and their relationships with their supervisors (Hideg, I., et al., *Journal of Applied Psychology*, Vol. 103, No. 10, 2018). As a result, women may feel compelled to come back early from maternity leave or stay in touch while they're away.

"At the expense of their own health and their child's health, women may try to remain tethered to work to show that they're still committed to their jobs," said Ho Kwan Cheung, PhD, an assistant professor of psychology at the University at Albany in New York.

But experts say the onus should not fall on women to mitigate anticipated unfair treatment that could harm their standing at work. Instead, companies should consider how they can better support all employees—not just parents—in navigating life circumstances outside of work, Cheung said. In addition to maternity and paternity leave, that might include offering time off to care for a sick parent or to mourn a recent loss. That sort of shift could also help reduce resentment from employees without children who may view parental leave policies as unfair.

Research indicates that offering parental leave can also benefit organizations themselves, improving recruitment, retention, and employee engagement (*Paid Family and Medical Leave: Good for Business*, National Partnership for Women & Families, 2018). But for leave to help companies and individuals, it needs to be seen as usable.

"At some organizations, you may be taking the leave but feel terrible about it, or concerned about how it's going to impact your career," said King, an associate professor of industrial/organizational psychology at Rice University.

But these families are often ineligible for such benefits because of the limits of the FMLA and inconsistency in state and employer policies. People who get paid leave are much more likely to be affluent, well educated, and White. U.S. Bureau of Labor Statistics data indicate that about 47% of White parents, 41% of Black parents, and just 23% of Hispanic parents have access to paid leave ("Racial and Ethnic Disparities in Access To and Use of Paid Family and Medical Leave," Monthly Labor Review, 2019). Although factors like higher education levels and socioeconomic status can help buffer against the stressors of parenthood, people of color are more likely to face additional stressors such as racial discrimination.

"We're essentially taking our most vulnerable new parents and giving them the least access to things like rest, restoration, and support," Saxbe said.

Not only can parental leave policies bolster physical and mental health among lower-income parents; they can also improve household security. After California passed its paid family leave law, poverty risk among mothers of infants decreased by more than 10% (Stanczyk, A. B., *Social Service Review*, Vol. 93, No. 2, 2019). Paid leave is also associated with greater relationship stability and may even help reduce intimate partner violence (Petts, R. J., et al., *Journal of Social Policy*, Vol. 49, No. 4, 2020; Schappell D'Inverno, A., et al., *Preventive Medicine*, Vol. 114, 2018).

CHANGES IN FATHERS' BRAINS

Increasingly, psychologists are studying how offering leave to fathers can benefit the whole family. What they've learned about the so-called "fathering brain" provides insight into how

parental instincts develop and why family leave is a crucial part of that process.

"Like any kind of learning, a parent's brain grows and changes with new experiences," Saxbe said. "We develop responses to our babies because we're in charge of them, not because moms are perfectly designed to be the primary caregiver."

An Israeli team collected fMRI data from both same-sex and heterosexual parents 1 year after their child's birth, finding that "primary caregiver" gay fathers displayed amygdala activation similar to the mothers in the study, whereas "secondary caregiver" gay fathers had brain activity that more closely resembled heterosexual fathers. These results indicate that brain patterns thought to exhibit emotional attunement in moms can also be seen in dads.

Bonding with an infant during the postpartum period appears to be a key part of that growth. Among all fathers in the study, more time spent on child care predicted more connectivity between the amygdala and the superior temporal sulcus, a key empathy pathway in the brain (Abraham, E., et al., *Proceedings of the National Academy of Sciences*, Vol. 111, No. 27, 2014).

These findings hold up even when dads don't self-select but are directed to spend close bonding time with their infants. In a randomized, controlled trial of first-time fathers, those who carried their babies in a soft carrier attached to their bodies showed more amygdala activity when they heard babies crying than those who used a carrier seat (Riem, M. M. E., et al., *Psychoneuroendocrinology*, Vol. 132, 2021).

"This strongly suggests that it does not matter who you are, but it does matter what you do," said Marian Bakermans-Kranenburg, PhD, a professor of neurobiological and environmental determinants of parenting and child development at Vrije Universiteit Amsterdam and a principal investigator of the study. "Fathers who have the opportunity to do more will adapt themselves better to parenthood."

When men take leave, their partners also benefit. Following a Swedish policy reform that increased fathers' ability to stay home, mothers had fewer physical health complications and were less likely to take prescription medications for anxiety (Persson, P., & Rossin-Slater, M., NBER Working Paper No. 25902, 2019). Saxbe, her graduate student Sofia Cardenas, and their colleagues also found that moms reported less depression and stress, and dads reported less daytime fatigue, when paternity leave was available (*Journal of Child and Family Studies*, Vol. 30, 2021).

But paid leave is even harder for fathers to obtain, which particularly harms same-sex male couples, who receive less leave than heterosexual or same-sex female couples in many countries (Wong, E., et al., *Journal of Social Policy*, Vol. 49, No. 3, 2020). Research is scant on how paid leave may function differently for same-sex couples, adoptive parents, and other family arrangements.

BENEFITS FOR CHILDREN

All the mental, physical, and relational benefits adults reap ultimately trickle down to their children. Paid leave is associated with lower infant mortality rates



Experts are working to put the onus on employers, rather than new parents, to make sure taking parental leave is not a career setback.

FG TRADE/GETTY IMAGES

and higher rates of vaccination, especially for families below the poverty line (Khan, M. S., *Child and Youth Services Review*, Vol. 116, 2020; Choudhury, A. R., & Polachek, S. W., *Vaccine*, Vol. 39, No. 21, 2021). Women with access to more paid leave also breastfeed more, which can boost a child's immunity and development (Paid Family Leave: A Crucial Support for Breastfeeding, CLASP). Improvements in child physical health carry through at least until elementary school, according to a cross-sectional study of health outcomes before and after California implemented its paid family leave policy (Lichtman-Sadot, S., & Bell, N. P., *Journal of Policy Analysis and Management*, Vol. 36, No. 4, 2017).

An abundance of psychology research has demonstrated that parent–child bonding in the first months and years of life is crucial for the development of healthy cognitive, behavioral, and socioemotional skills and can even dictate mental health over the life span (Mikulincer, M., & Shaver, P. R., "Attachment Theory," in *The Cambridge Handbook of Personality Psychology*, 2020).

Compared with unpaid leave, paid maternal leave is also associated with a distinct profile of brain activity in infants that may indicate more mature early cognitive functioning. Natalie H. Brito, PhD, an assistant professor of applied psychology at New York University, and her colleagues found that patterns of infant electroencephalogram (EEG) activity were different across paid and unpaid leave groups, even when controlling for income, education, occupation, perceived stress, and other factors. Mothers who took leave also showed less physiological stress and had more sensitive interactions with their infants. The paper is currently in press with *Child Development* (PsyArXiv Preprints, 2021). "Paid leave was most likely to predict this pattern of infant brain function over and above everything else," Brito said.

Differences in early brain activity were also reported among infants in the Baby's First Years study, an experimental trial of universal basic income for low-income mothers, further suggesting that monetary support can influence early brain development (Troller-Renfree, S. V., et al., *Proceedings of the National Academy of Sciences*, Vol. 119, No. 5, 2022).

Brito's research also shows that parents' paid leave is associated with better language skills in toddlers and fewer infant behavioral problems for mothers with less education (Kozak, K., et al., *Infancy* Vol. 26, No. 4, 2021). Further studies suggest that longer maternal leaves are linked to fewer cognitive and behavioral problems, even when controlling for factors like the quality of child care and the home environment (Berger, L. M., et al., *The Economic Journal*, Vol. 115, No. 501, 2005; Brooks-Gunn, J., et al., *Child Development*, Vol. 73, No. 4, 2002).

"It's the resources and the time that families have after childbirth—during one of the most important periods of brain development—that really matter," Brito said.

FURTHER READING

Paid family leave policies and population health
Rossin-Slater, M., & Uniat, L., Health Policy Brief, 2019

A national paid leave program would help workers, families
Romig, K., & Bryant, K., Center on Budget and Policy Priorities, 2021

A fresh look at paternity leave: Why the benefits extend beyond the personal
McKinsey & Company, 2021



INFLUENCING POLICY

With such a strong evidence base for parental leave, some psychologists are shifting their energy toward research questions with more policy-relevant end points. For Saxbe, that often involves "putting a brain on it"—demonstrating how paid leave can change a parent's or child's



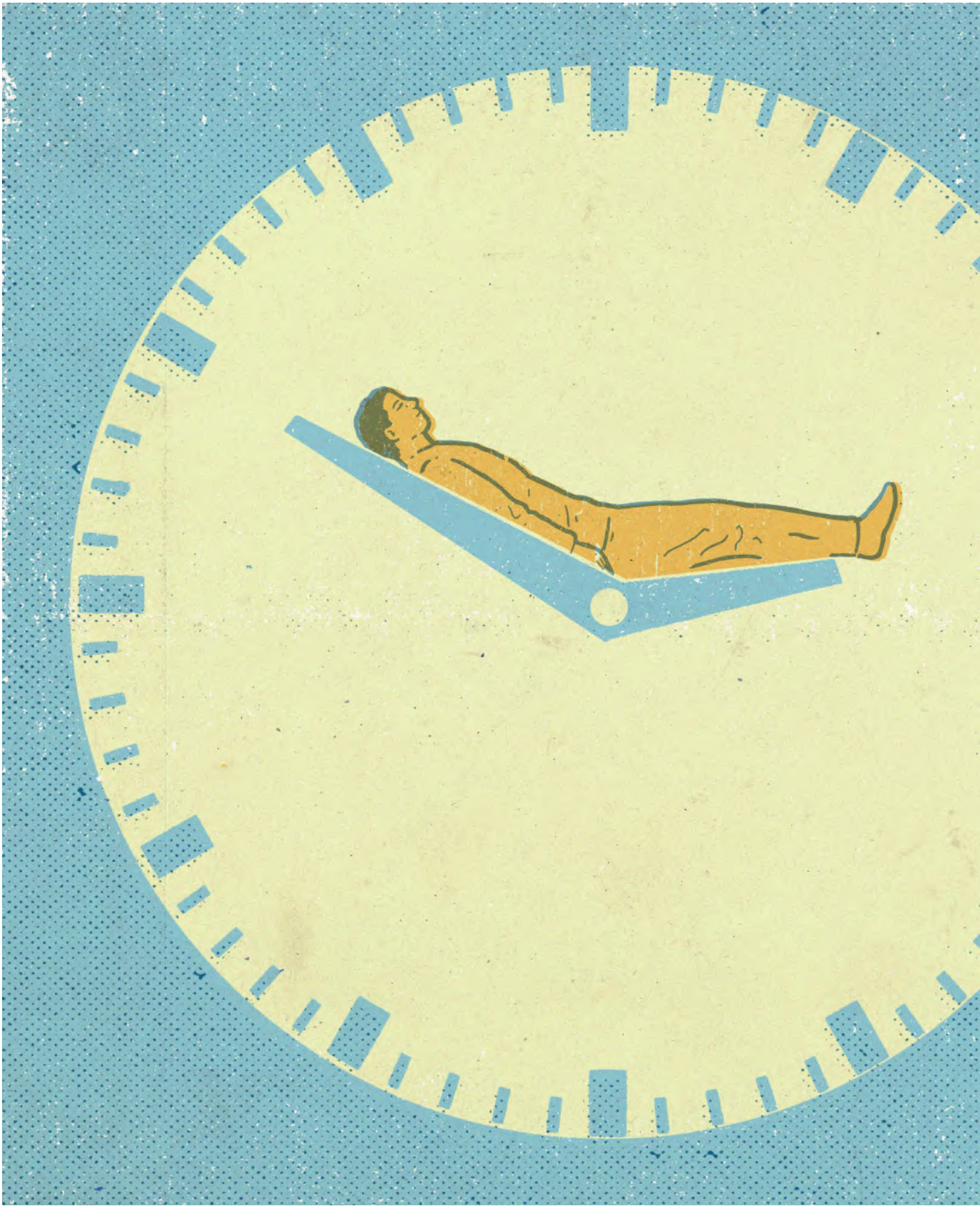
ISABELLA DE MADDALENA/LUZ/REDUX

A Danish mother cares for her baby during her 8-month maternity leave. The United States remains one of just six countries worldwide that do not offer paid parental leave.

brain, which may hold more weight with the public than self-report data. It also involves thinking critically about how to quantify the benefits of a universal paid leave policy.

"What do policymakers actually care about? A lot of the time, it's cost-effectiveness," she said. For example, can paid leave reduce the rates of chronic stress-related illnesses that cost billions of dollars each year to treat? More collaboration with economists might help quantify outcomes in a way that's meaningful on a policy level, Saxbe suggests.

Green also recommends the Scholars Strategy Network as a way for researchers to connect directly with civic leaders. "If we can make a case that this is going to benefit society—through reductions in health care costs, more happiness, and retention on the job—those are some of the arguments that might convince policymakers and leaders of organizations," she said. ■



DAN PAGE/ISPOT



More Growth for Patients in Less Time

Psychologists are applying research on single-session interventions to improve patients' symptoms in one visit

BY ASHLEY ABRAMSON

Amid an ongoing national mental health crisis ("Stress in America 2020 Survey Signals a Growing National Mental Health Crisis," APA, 2020), the work of psychologists is more important than ever. But for the growing number of people who need mental health support, seeing a psychotherapist isn't always a possibility. A shortage of clinicians and a surge in demand has resulted in months-long patient waiting lists. Logistical factors like cost, location, busy schedules, and even cultural stigmas about mental illness may also stand between therapists and potential patients.

Psychologists have identified a potential way to overcome barriers to accessing mental health treatment in a growing body of research on single-session interventions (SSIs). When time is of the essence—for example, addressing a challenge before a big transition or when multiple sessions of therapy aren't readily available or accessible—psychologists have curated single therapy sessions or other psychology-based interventions to facilitate fast, and sometimes lasting, growth in patients.

Psychological research has long shown that it's possible to facilitate sudden gains—or fast growth—through therapy. SSIs build on that idea by concentrating evidence-based therapy components and psychological principles within a single session, which may help patients manage everyday stressors and mental conditions like anxiety and depression.

"In the past, we've had the idea that growth happens randomly or out of the blue, but single-session intervention work suggests you can curate growth," said Jessica Schleider, PhD, assistant professor of clinical psychology at Stony Brook University. "We can do things to optimize the likelihood of a client's gain."

Here's what research suggests about how single-session interventions can help, and how therapists are leveraging this knowledge to help improve their patients' lives.

What Is a Single-Session Intervention?

Although the exact format for an SSI varies, there are a few essential components:

There is no assessment; the therapist starts with the patient's self-assessment.

There is no ongoing treatment plan.

Treatment or another psychology-based intervention fits in one optimized session (and, if needed, the therapist will recommend further treatment).

DEFINING SINGLE-SESSION INTERVENTION

All therapists want their patients to get better, and in many situations they prescribe multiple sessions of therapy as the plan toward that goal. But ongoing therapy can be costly and time-consuming—and not every patient wants to attend multiple sessions. Data suggest that even when a therapist recommends ongoing treatment sessions, most patients don't return after their first meeting with a therapist (*Single-Session Therapy by Walk-in or Appointment*, Routledge, 2018).

According to Schleider, therapists should provide patients what they need, not what the therapist would prefer as a therapy dosage. SSIs are one way to do that.

Like psychological first aid, single-session interventions give support to people who need it, when they need it. The distinguishing factor is that SSIs don't assume that people will pursue therapy later; the psychological skills are embedded within one session. Psychologists have identified several strategies that seem to improve people's symptoms and well-being, from one-time individual and group sessions to digital interventions based on psychological principles.

Psychotherapy usually occurs over a period of time and uses different therapeutic approaches, and the therapist–patient relationship is one component of what helps people grow over time. Typically, ongoing therapy begins with a diagnostic assessment and creation of a treatment plan. With single-session therapy, there is no ongoing treatment plan. Instead, SSIs squeeze the most useful therapeutic strategies into one optimized session that provides the patient with tools they need to help themselves grow, without assuming they'll come back for more.

SSIs are used in a variety of settings, including mental health clinics, schools and universities, and even primary care clinics and emergency departments. The common denominator in all these modalities: their ability to facilitate growth in a brief period of time.

OVERCOMING SYSTEMIC BARRIERS TO THERAPY

One of the most significant barriers to mental health access is a shortage of therapists, and the ongoing COVID-19 pandemic has exacerbated that shortage. People who are motivated to pursue psychotherapy often have to wait months to see a provider, which Schleider said can cause their conditions to worsen or reduce their motivation to seek care.

To prevent these issues in future patients, Schleider's lab has adapted a solution-focused therapy model that fits into a single session and administers it to people on clinic waitlists. "We wanted to see if we could increase motivation for treatment while folks were waiting and prevent their conditions from worsening by boosting agency and hope in the meantime," Schleider said.

So far, the intervention shows promise: In a 1-hour session with a trainee, patients identify goals and create an action plan to cope with their mental health condition or stressor. After the session, participants reported significant pre- to post-intervention improvement in perceived agency and hopelessness and rated the session as highly acceptable and useful (*The Behavior Therapist*, Vol. 44, No. 1, 2021).

For some people, barriers like busy schedules and financial difficulties make it less desirable to pursue therapy, especially among marginalized communities. According to Shalena Heard, PhD, a Maryland-based clinical psychologist, people of color—who are subject to systemic inequities—often don't pursue mental health services until an emergency occurs. In response to these societal injustices,



G-STOCKSTUDIO/ISTOCK

Heard has found a creative route to improve her patients' mental health in psychological assessments.

Because Heard often works with marginalized populations who aren't likely to access care as a result of financial barriers or cultural stigmas about therapy, she incorporates psychological skill-building into her initial assessment. "If this is the only time the person will be working with a mental health professional, I want them to get as many strategies as possible," Heard said. Along with introducing coping skills for anxiety, depression, and attention-deficit/hyperactivity disorder, Heard shares mental health–supporting resources her patients may be more likely to pursue than therapy, such as school- and community-based mentorship, group therapy, and even psychoeducation-focused apps and podcasts.

Digital SSIs are another option, especially when stigma about traditional therapy is involved. John R. Weisz, PhD, professor of psychology at Harvard University, has collaborated with an international team in developing an intervention for adolescents in Kenya, where he said people often don't seek mental health care because of stigma and a shortage of professional providers. Using positive psychology principles like gratitude, growth mindset, and value affirmation, the team created a four-session, in-person group intervention—Shamiri (which means "thrive" in Swahili)—led by trained high school students, then distilled the program into a computer-guided SSI called Shamiri-Digital. The in-person version of Shamiri has reduced both depression and anxiety significantly (*JAMA Psychiatry*, Vol. 78, No. 8, 2021), and Shamiri-Digital, administered in students' computer classes, has significantly reduced depression (*Journal of Consulting and Clinical Psychology*, Vol. 88, No. 7, 2020).

Unlike other apps and other

Digital SSIs can increase access to mental health support and don't require repeated engagement with content or a provider.



Single-session interventions can be used as a tool to promote general well-being and resilience.

online resources available today, Shamiri-Digital does not require repeated engagement with digital content or a provider seen remotely. Instead, it is a self-contained intervention that's completed in a single sitting, in just 1 hour. Shamiri-Digital can provide mental health support that is much more accessible than traditional psychotherapy, particularly in regions where there are relatively few professional providers. It is also more economical for those who can't afford mental health services, costing less than $4 per student to access rather than hundreds of dollars in traditional therapy (*Journal of Consulting and Clinical Psychology*, Vol. 89, No. 8, 2021).

PROVIDING GROWTH TOOLS WITHOUT A COMMITMENT

Some SSIs are designed to provide basic coping tools when someone doesn't need or want ongoing psychotherapy. "For example, for some people with conditions like anxiety, depression, insomnia, or chronic pain, long-term therapy may not be necessary for improvement," said Lorenzo Lorenzo-Luaces, PhD, assistant professor of psychological and brain sciences at Indiana University.

Athletes, for example—who often need quick growth results before a game—may benefit from SSIs. Tyler Bradstreet, PhD, associate athletics director for psychological health and performance at Texas Tech University, frequently uses single sessions to support athletes on an as-needed basis to address specific issues, like sports-related concerns or relationship issues. "Not every athlete is going to want or need traditional therapy, but every athlete could benefit from psychological intervention, because they have to be in top physical and mental shape to perform at a high level," Bradstreet said. Stress that significantly affects their

SSIs may be effective for

Depression
Anxiety
Restrictive eating
Everyday stressors
Goal-setting

SSIs may not be effective for

Severe substance use disorders

Complex mood and personality disorders

Patients who aren't clear about their goals

People who prefer ongoing support

G-STOCKSTUDIO/ISTOCK

performance for even a single game could derail a career, so the timeline of traditional therapy often doesn't work for them. To facilitate faster growth, Bradstreet uses sports principles like endurance, flexibility, balance, and strength to teach psychological skills.

College students, whose schedules may be unpredictable, can also benefit from single sessions. At the University of California, Santa Barbara, the counseling center offers single-session therapy for students using cognitive behavioral therapy (CBT) and mindfulness tools. Turi Honegger, PhD, the school's clinical director, said the ability to access support quickly is key for people who express interest. "That sort of immediacy capitalizes on the initial desire to do something about the problem," he said. "It creates a momentum that carries people forward."

Schleider's research also reflects the efficacy of SSIs among young people, especially when combined with digital platforms. In 2020, she and her colleagues evaluated a self-guided digital SSI for adolescents. Along with teaching CBT skills for coping with anxiety and depression, the intervention emphasizes empowerment—an ingredient Schleider said is often missing for young people in therapy settings. Even 3 months after the SSI, participants reported a reduction in anxiety, depression symptoms, and hopelessness (*Nature Human Behaviour*, 2021).

Schleider suspects the empowerment component is the most important in facilitating long-term growth. Depression and anxiety symptoms often cause people to feel "stuck," but learning about the brain's ability to change, along with learning effective new coping mechanisms, can be empowering. "All of us have a built-in potential for change that includes depression and anxiety symptoms that feel permanent, but biologically they're not," Schleider said. "The intervention teaches them why that is and how to take advantage of opportunities to grow."

PREVENTING FUTURE MENTAL HEALTH CONCERNS

Single-session interventions can also be used as a tool to promote general well-being and resilience, which could reduce the need for mental health services later on. David B. Feldman, PhD, professor of counseling psychology at Santa Clara University, developed a "hope workshop" designed to help people increase resilience to stress, building on C. R. Snyder's research on hope. In his research, Snyder defines hope as "the process of thinking about one's goals, along with the motivation to move toward and the ways to achieve those goals" (*Journal of Counseling & Development*, Vol. 73, No. 3, 1995).

In the group intervention, a leader helps participants set goals, strategize how to achieve their goals, and visualize achieving those goals and overcoming potential obstacles. Research suggests that, by the end of the intervention, participants feel more hopeful about their lives and report more meaning in their life purpose (*Journal of Happiness Studies*, Vol. 13, No. 4, 2012). A month later, participants had made more progress in their goals than those in a control group. Although Feldman doesn't consider the hope workshop to be psychotherapy, he says the improvement in resilience could cause depression and anxiety symptoms to decrease.

Psychologists seem to agree that a population health approach to single-session interventions could also be a preventative tool. Weisz and colleagues, for instance, are piloting four school-based SSIs in Ontario, Canada, in partnership with School Mental Health Ontario, an organization that supports a large consortium of school districts. In Ontario, the SSIs are used in concert with school counselor support. The counselors help the students choose the most appropriate digital intervention, and after the intervention is completed, the counselors talk with the students about what they learned and how it can be applied to their lives.

Similarly, Akash Wasil, a doctoral student in psychology at the University of Pennsylvania, helped create a 45- to 60-minute digital intervention that uses the CBT and positive psychology techniques most likely to help adolescents and young adults with anxiety and depression symptoms. His Common Elements Toolbox (COMET) intervention includes brief interactive reading and writing exercises based on cognitive restructuring,

RESOURCES

Single session thinking
La Trobe University

Single session therapy (on-demand webinar)
Essential Therapy Training, 2021

Introducing single-session/ walk-in therapy: An emergent form of service delivery (on-demand webinar)
APA, 2021

Single-session therapy (SST): 100 key points and techniques
Dryden, W.
Routledge, 2018

Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services
Hoyt, M. F., et al.
Routledge, 2018

behavioral activation, gratitude, and self-compassion (*Frontiers in Psychology*, 2021). Although the skills are specific enough to relieve symptoms of anxiety and depression—Wasil's research showed positive effects for up to 3 months—the skills are useful for anyone.

According to Wasil, further integrating mental health interventions in schools could be an effective way to promote long-term well-being in adolescents. "In my ideal society, people would be exposed to psychological principles just like they learn basic arithmetic," he said. "I think of it as putting evidence-based strategies into the water supply."

THE RELATIONSHIP OF SSIs AND TRADITIONAL THERAPY

Single-session and traditional therapy are different options in an array of psychological interventions, and Lorenzo-Luaces says it's very unlikely that the availability of SSIs would negatively impact psychologists who provide ongoing psychotherapy. "Mental disorders like depression and anxiety are so prevalent that even if the number of therapy providers doubled overnight, there would still be a shortage," he said. "So we who develop these interventions think of them as an adjunct." Further, conditions such as very chronic substance use disorders and more complex mood and personality disorders may not be conducive to the single-session model.

In many cases, single-session interventions go hand in hand with traditional therapy models. As with Schleider's intervention, SSIs can tide people over with coping skills until ongoing therapy is available. Lorenzo-Luaces adds that single sessions can be used as first-line interventions when resources are limited—like the difference between going to the doctor's office for a bad cold versus going to the emergency room later with bronchitis or pneumonia.

George Mason University in Fairfax, Virginia, recently implemented a stepped-care model for students, staff, and faculty that puts this type of model in place. Anyone who needs support can do an initial phone call with a psychologist-trained undergraduate student who implements an evidence-based, coping-focused intervention. If the person's needs aren't resolved with that session, the student refers them to an intervention called the Brief Assessment–Informed Skills Intervention for COVID-19 (BASIC), which is delivered by a graduate-level psychology student in one to three sessions. Anyone whose needs exceed that intervention is referred for standard therapy at George Mason's Center for Psychological Services.

Developed in response to the added uncertainty and pressures caused by the pandemic, the BASIC model reduces strain on therapists, provides a scalable model for addressing the needs of the community, and also has the potential to reassure people who may be nervous about therapy. "Taking baby steps toward longer-term therapy can reduce people's fear of seeking support through long-term therapy," said Keith Renshaw, PhD, chair of clinical psychology at George Mason.

FURTHER READING

A randomized trial of online single-session interventions for adolescent depression during COVID-19
Schleider, J. L., et al. *Nature and Human Behavior,* 2021

Availability of internet-based cognitive behavioral therapies (iCBTs) for depression: A systematic review
Buss, J., et al. *PsyArXiv Preprints,* 2021

Capturing the moment: Single session therapy and walk-in services
Hoyt, M., & Talmon, M., *Crown House Publishing,* 2014

Wasil believes digital interventions could also help with stigma around therapy, and hopefully prompt people to seek further support if needed—especially for younger adults, who tend to prefer self-help (*Primary Care and Community Psychiatry*, Vol. 11, No. 2, 2006). Online platforms that teach evidence-based coping skills could be a gateway to therapy, Wasil said, helping people understand what therapy entails and motivating them to seek it out.

Single-session therapy may also occur after a client completes a course of multiple sessions with a therapist. Cynthia Dodge, PhD, a counseling psychologist based in Arizona, offers single-session therapy through her private practice, using CBT, dialectical behavioral therapy, and skills-based interventions to help people cope with personal problems in a 1-hour virtual session. Many of her single-session patients are people who have already attended ongoing psychotherapy but need help with a particular problem without a commitment. "It's like a booster shot for people who have been through therapy and need help synthesizing the tools and knowledge they've already gained," said Dodge.

INCORPORATING SSIs INTO PRACTICE

Any clinician can incorporate single-session principles into their practice and there are many resources available, from books to e-courses and other trainings. Windy Dryden, PhD, a London-based clinical psychologist who teaches SSI workshops, says



MILAN MARKOVIC/GETTY

Single-session interventions can help athletes achieve quick growth results before a game.

it's important to incorporate practices from a variety of approaches to best help the patient. "You can ask yourself, if I only have one particular session with this client, how can I use it?"

If you plan to work with particular populations, Bradstreet says that speaking a patient's cultural language is useful. He developed a "mental fitness model" to help athletes understand psychological principles in terms they're familiar with. In working with youth, therapists often use technology to facilitate growth.

Understand, too, that single-session interventions aren't for everyone. Dodge says that she carefully screens potential patients with a questionnaire before offering a single session. For example, she asks them to share what they can control in their lives, and then what they would like to focus on and change, to ensure they have a concern that could be addressed in one session. Generally, she says, people who are motivated to grow in a short amount of time and already know what they're struggling with do best in this type of therapy.

SSIs may not be as helpful for patients who aren't clear about the source of their distress, because dissecting a problem in therapy can be time-consuming. In addition, patients who don't already have a degree of confidence in the therapeutic process before the meeting are also not good candidates for SSIs. For these patients, it may take a number of sessions to develop an orientation to understanding the source of the distress and how psychological principles and strategies could be helpful.

Whether a psychologist does one session or several, the idea is to help people in a way they're most likely to benefit from. "We're trying to offer patients the help they want rather than the help we think they need," said Dryden. ■


Mitchell


Yao


Holmes-Sullivan


Arthur


Mrug

PSYCHOLOGISTS IN THE NEWS

The Association for University and College Counseling Center Directors (AUCCCD) has presented its 2021 Lifetime Achievement Award to **Sharon Mitchell, PhD,** for her national leadership in the field of university counseling. Mitchell is the senior director for student wellness and director of counseling services at the University at Buffalo. She served as AUCCCD president from 2017 to 2020. Prior to that, she served as a member of the association's board of directors for 10 years.

California State University Channel Islands (CSUCI) has appointed **Richard Yao, PhD,** as its new president. Yao has served as interim president of CSUCI since January 2021. He came to CSUCI in June 2018 after working at Nevada State College for nearly 12 years, serving first as a senior lecturer in psychology and later as dean of students.

Robin Holmes-Sullivan, PhD, will become president of Lewis & Clark College in Portland, Oregon, in July in a flurry of firsts: She will be the first woman president, the first Black president, the first LGBTQ+ president, and the first person of color to lead the college. Prior to her 3 years as vice president of student life at Lewis & Clark, she was the vice president of student affairs in the University of California system for 3 years, and she spent 24 years at the University of Oregon in a variety of roles, including dean of students and vice president of student life.

Carlotta M. Arthur, PhD, has joined the National Academies of Sciences, Engineering, and Medicine as the executive director of its Division of Behavioral and Social Sciences and Education. She previously served as director of the Clare Boothe Luce Program for Women in STEM at the Henry Luce Foundation. Arthur trained as an engineer before pursuing psychology and was the first Black woman to earn a bachelor's degree in metallurgical engineering from Purdue University.

Sixteen psychologists have been elected fellows of the American Association for the Advancement of Science by the association's section on psychology. The new fellows are: **Jerome Busemeyer, PhD,** Indiana University Bloomington; **Fernanda Ferreira, PhD,** University of California, Davis; **Leonard Green, PhD,** Washington University in St. Louis; **James J. Gross, PhD,** Stanford University; **Mary Hegarty, PhD,** University of California, Santa Barbara; **Ann M. Kring, PhD,** University of California, Berkeley; **Ping Li, PhD,** The Hong Kong Polytechnic University; **Susan Kerri Lutgendorf, PhD,** University of Iowa; **Mark A. McDaniel, PhD,** Washington University in St. Louis; **Darcia Narvaez, PhD,** University of Notre Dame; **James R. Pomerantz, PhD,** Rice University; **C. Cybele Raver, PhD,** Vanderbilt University; **Patricia Ann Reuter-Lorenz, PhD,** University of Michigan; **Marilyn Stern, PhD,** University of South Florida; **Anne Tsui, PhD,** Arizona State University; **Edward A. Wasserman, PhD,** University of Iowa.

The University of Alabama at Birmingham College of Arts and Sciences has presented the Ireland Prize for Scholarly Distinction to **Sylvie Mrug, PhD**. Her research focuses on the development of behavioral and emotional problems in adolescence. The prize recognizes Mrug's scholarship, teaching, commitment to mentoring, and her leadership of the psychology department from 2017 to 2021.

Sport psychologist **Richard Howell Coop, EdD,** died in December 2021 at age 81. Coop had been on the faculty at the University of North Carolina at Chapel Hill for 30 years. He worked with both college-level and professional athletes, including golfer Jack Nicklaus. ■

News You Can Use

Career

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



MONKEYBUSINESSIMAGES/GETTY IMAGES

SUPPORTING PARENTS VIA INSTAGRAM

Psychologists have become the go-to parenting gurus of Instagram. Can their reach impact families for the better?

BY STEPHANIE PAPPAS

A typical Monday through Wednesday will find Ann-Louise Lockhart, PsyD, ABPP, seeing patients and reviewing clinical notes. Toward the end of the week, though, the San Antonio–based pediatric psychologist is more likely to be found in front of her computer riffing on the latest meme to create parenting advice videos for Instagram.

Lockhart, whose handle is @dr.annlouise.lockhart, is one of a growing number of psychologists who now operate as much on social media as they do in private practice or academia. She focuses her outreach on a group that is ravenous for information: parents. On Instagram, home of "momfluencers" and tastefully neutral nursery design inspiration, the desire for substantive, research-based parenting-related advice is strong. By putting their credentials up front, citing the research behind their advice, and offering education and resources in a

nonjudgmental way, psychologists can break through the racket of conflicting information to provide some clarity.

In many ways, the platform is perfect for busy caregivers. Information is delivered in bite-size snippets, ideal for a quick peek while a toddler naps. Parenting problems can be challenging and all-consuming, but many are common enough that general evidence-based advice can help. And parents can find community in the comments of an account like Lockhart's—a community that is there to affirm hard feelings and frustrations at any hour of the day.

Though psychologists who offer parenting advice online must be careful about ethical boundaries, they are finding that they can be a source of information, inspiration, and support for parents, particularly in the context of ongoing pandemic stress and a growing mental health crisis.

"These social media sites and online resources are giving people a lot of resources that they would never have otherwise had access to," Lockhart said.

POCKET PSYCHOLOGISTS

Raising children is full of moments when nothing feels simple: when it's 3 a.m. and your 6-month-old won't stop screaming, when your toddler throws a plate of food against the wall and drops to the floor wailing, when your preteen delivers the most cutting remark you can imagine and slams the bedroom door.

In those moments, a tiny boost of support can make all the difference, said Laura Markham,



Developmental psychologist Dr. Aliza Pressman hosts a podcast and accompanying Instagram account on parenting called *Raising Good Humans*.

PhD, a clinical psychologist and founder of Aha! Parenting, a parent coaching and resources business that does outreach on Instagram. "Most parents know how to be better parents, but it's hard. It's hard to do in the moment when there is complete chaos in the house and your kid has looked right at you and socked their brother," Markham said. "Parents just need the support of somebody who says, 'Yes, this is so hard; you've got this, you can do it.'"

In that sense, social media can be better and faster than the traditional ways psychologists have shared evidence-based parenting strategies, such as through books or news articles. "I get feedback all the time from people who have been following me or accounts I recommend saying, 'The messages came at just the right time,'" Lockhart said.

Thousands of parents follow these psychologists' accounts for practical tips and ways to parent differently than previous generations. Krissy Hadick, who runs a baby gear and parenting website, said she's picked up tips on how to empathize with her 3-year-old son's emotions and offer choices to give him a sense of control. For Lisa Forsythe, who started a website curating activities for small children during the pandemic, psychology accounts are a great way to keep up to date with current parenting research.

"As parents, it is our duty to remain calm and support our children as they learn about themselves and how to regulate their emotions," said Forsythe, who is the mother of a toddler. "This is very different from the attitude of 'children should be seen but not heard,' which was popular for many years."

Many followers are eager for new models of parenting. One of Lockhart's most popular parenting courses is on breaking generational cycles. Aliza Pressman, PhD, a development psychologist who directs clinical programming for the Mount Sinai Parenting Center in New York and hosts a podcast and accompanying Instagram account called *Raising Good Humans*, also said she has many followers looking to parent differently than they were parented. "I've had many, many people over the years who have written to me and said, 'I came from a long line of yellers. I saw you on Instagram or Facebook and subscribed to your newsletter and it completely changed my life,'" she said.

Social media can also be a source of validation when parents feel their own mental health is suffering, said Ashurina Ream, PsyD, whose account @psychedmommy focuses on the perinatal and postpartum period and maternal mental health. Ream said she was inspired to start the account after her own rocky transition to motherhood. "A lot of it stems from identity changes, burnout,

and feeling anger and rage that were unexpected," she said. "My primary goal in creating Psyched Mommy is that a parent won't feel like I did in those early days postpartum, because I felt really alone and isolated."

Expanding access to resources is a key motivator for Erlanger Turner, PhD, a clinical psychologist and assistant professor at Pepperdine University in Los Angeles who posts on Instagram under @drearlturner and @therapyforblackkids. The later account is a brainchild from the coronavirus pandemic. As the public worried about the effects of lockdowns and school closures on kids, Turner said, Black families were often left out of the conversation. "There weren't a lot of resources and information on mental health," he said.

Turner provides general parenting tips and spotlights therapists who work with Black kids around the country. He now provides three to five referrals to culturally competent therapists each week in response to messages that come in through his accounts. "The thing I've seen specifically in the last 6 months is inquiries from parents or grandparents about finding Black therapists for their kids or grandchildren, and specifically for Black boys looking for Black male therapists, which is another challenge in itself," he said.

Of course, there is a cacophony of parenting information online, of wildly varying quality. And internal research by Facebook (now called Meta, which owns Instagram) suggests that Instagram can be harmful for some groups, particularly teenage girls struggling with body image (Wells, G., et al., *The Wall Street Journal*, Sept. 14, 2021). There is some evidence that people who have a tendency to engage in social comparison experience social anxiety with social media use (Jiang, S., & Ngien, A., *Social Media + Society*, Vol. 6, No. 2, 2020). It would be surprising if Instagram's parenting content, with its perfectly coifed children and rainbow arrays of vegetable snack trays, were immune to this type of comparison.

But many psychologists using Instagram try to combat these stressful aspects of social media, both by urging their users to cultivate self-acceptance and by spotlighting evidence-based guidance. While psychologists might label their approach in different ways—"positive parenting" or "gentle parenting" are common descriptions—the goal for many typically boils down to teaching parents how to be authoritative caregivers, said Pressman.

This is the parenting style linked to the most positive outcomes for kids. For example, a meta-analysis by psychologist Martin Pinquart, PhD, of the University of Marburg in Germany, found that authoritative parenting, characterized by warmth and responsiveness paired with firm behavioral boundaries, was the style least associated with externalizing problems in children and adolescents over time (*Developmental Psychology*, Vol. 53, No. 5, 2017).

"In parenting, there is really one golden rule, and it's said in five thousand different ways," Pressman said. "'All feelings are welcome; all behaviors are not.' I think that is basically authoritative parenting."

THERAPY VERSUS EDUCATION

Being a psychologist online does require strong boundaries

Many people look to psychologists on Instagram for guidance on how to parent differently than they were parented.



VIOLETASTOIMENOVA/GETTY IMAGES

and a lot of thought about one's role. It's important not to offer treatment or practice outside the scope of one's license. Psychologists differ in whether they use their social media as part of a business or on a purely volunteer basis. Some offer paid coaching or will accept clients who find them online, while others are not clinicians and view their work more like science communication or outreach. Those who do clinical work typically establish firm boundaries between their roles in providing treatment and in providing education. "We make it clear that although I am a therapist, I'm not your therapist," said Ream.

APA has not yet issued guidelines for psychologists' professional online engagement, but the Device Management and Intelligence Committee of the Society for Media Psychology and Technology (Div. 46) is in the process of preparing a set of guidelines for approval. APA did release a narrower set of recommendations—the *APA Guidelines for the Optimal Use of Social Media in Professional Psychological Practice*—for the use of social media in psychological practice in October 2021. The Association of State and Provincial Psychology Boards, which represents licensing boards in the United States and Canada, also released guidance in November 2020 (Drude, K., & Messer-Engel, K., *Journal of Technology in Behavioral Science*, online first publication, 2020).

The upcoming guidelines will be broad recommendations, said Sarah Domoff, PhD, a clinical child psychologist at Central Michigan University who is on the Device Management and Intelligence Committee. They will cover issues ranging from privacy to ethics to how psychologists can help their clients navigate social media. In the meantime, all digital conduct should follow APA's Ethics Code and be held to the same standards as face-to-face engagement.

Many of Instagram's parenting psychology gurus say they take their presentation on social media very seriously. "We have a responsibility in this field of psychology to make sure that we honor the content and the integrity of the content that's getting out there and not use the platform to say things that drive traffic but are actually not accurate," Pressman said. This means avoiding clickbait-type sound bites or extreme language. Psychologists also need to be careful not to inadvertently put undue pressure on parents to live up to unrealistic standards.

"I don't want people to think they're not going to have securely attached kids because of some particular random moment when they were just trying to get a shower in," Pressman said.

To cultivate a supportive environment, clinical psychologist Rebecca Kennedy, PhD, better known to her more than one million Instagram followers as Dr. Becky, interacts with followers in her comment section on a regular basis. She finds that responding to her followers helps cultivate more nuance in her own thinking and that her commenters also become her ambassadors. If someone responds to a post saying a particular technique doesn't work on their kids, other followers will chime in with links to older videos with deeper information or share how they tweaked the recommendations. "We're watching members empower themselves and respond," said Kennedy, who also hosts the podcast *Good Inside With Dr. Becky*.

It's always a fine balance to give recommendations that are generalizable yet still useful, Ream said. But feedback on social media is often more rapidly

The Instagram accounts of the psychologists quoted in this story can be found at:

- **Anne-Louise Lockhart** @dr.annlouise.lockhart
- **Aliza Pressman** @raisinggoodhumanspodcast
- **Laura Markham** @drlauramarkham_ahaparenting
- **Ashurina Ream** @psychedmommy
- **Erlanger Turner** @drearlturner; @therapyforblackkids
- **Rebecca Kennedy** @drbeckyatgoodinside



Clinical psychologist Dr. Rebecca Kennedy shares strategies for tackling parenting challenges via Instagram and on her podcast, *Good Inside With Dr. Becky*.

honest than in one-on-one therapy, she said, which can be helpful because it's obvious whether the message landed. "You take that and you digest it, and you're like, 'Yeah, OK, I probably missed the mark,'" she said.

Many psychologists who use Instagram view their social media posts as a gateway to deeper education, differentiating them from many self-proclaimed parenting advice-givers online. Markham, for example, hosts a library of in-depth articles on Aha! Parenting, which she'll direct social media followers to when they have questions that can't be answered in a bite-size response. Pressman's *Raising Good Humans* podcast delves into the science of childhood and parenting, often in interviews with researchers studying things like parental well-being and adolescent brain development.

But psychologists on social media must also be careful not to tip too far into offering individualized advice. The relationship between followers and a big-name account can be almost "parasocial," a term referring to one-sided relationships such as those that develop between fans and celebrities. On social media, followers may feel they know the person they're following intimately and develop a strong sense of trust. Many psychologists draw strict limits as to how much they share about their personal lives on social media. This sets them apart in the mommy-blogging world, where a confessional tone is common.

That doesn't mean that the balance is always comfortable. There are times when people reach out with long, detailed direct messages, Lockhart said, often containing a great deal of personal information. In those cases, she refers the person to other resources without directly giving advice and will sometimes warn them not to reveal too much private information online. It's most difficult when someone shares information about abuse, she said; this can put mandated reporters in an awkward position.

"It's really about understanding that lots of people need help and really setting the firm boundaries of what I'm able and what I'm not able to do," Lockhart said.

To draw a bright line between online education and private therapy, most psychologists on Instagram offer referrals to private services in response to complex queries. Some clinical psychologists on the site will take private clients who find them via Instagram. Lockhart, for example, has found that people who look at her content on Instagram before reaching out for private therapy tend to respond well in individual sessions because they already know they're a good fit with her philosophy. Other clinical psychologists prefer to keep their social media and private practice separate and will refer to other clinicians if someone messages them with a serious problem.

It's also important for psychologists to care for their own mental health online: Just as anyone using social media can find themselves slipping into overuse or counterproductive comparisons, so too can psychologists. It's important, Kennedy said, to watch for the tendency to seek external validation through Instagram, such as fixating on numbers of likes and shares. She said that one way she protects herself from this emotional downside of Instagram is by checking in with herself about what she likes about her latest post. This keeps her grounded in her own beliefs and values instead of relying on the response to the post as the measure of success.

Ultimately, psychology education on social media is no replacement for one-on-one help, Markham said. But many parents don't need intensive therapy or coaching, and even those who do can benefit from the stopgap of support social media offers. The disruptions of the coronavirus pandemic have been hard on children's' mental health, Markham said, and waiting lists for therapy are long. In the meantime, online outreach can help combat the notion that parents should be able to do everything alone and can help destigmatize reaching out for help.

"We're so lucky to be alive at this time when society is actually becoming more transparent," Markham said. "For all of its faults, and it has many, social media is part of that change. I see those of us doing parenting work as part of this vast wave of humanity moving us forward into a future where children will be raised with compassion and patience and the kind of understanding that allows them to grow fully into themselves." ■

FURTHER RESOURCES

The use of social media as a mechanism of social support in parents
Haslam, D. M., et al. *Journal of Child and Family Studies*, 2017

Mothers' perceptions of the internet and social media as sources of parenting and health information: Qualitative study
Moon, R. Y., et al. *Journal of Medical Internet Research*, 2019

How parents and their children used social media and technology at the beginning of the COVID-19 pandemic and associations with anxiety
Drouin, M., et al. *Cyberpsychology, Behavior, and Social Networking*, 2020

HOW TO GET COMFORTABLE TALKING WITH THE MEDIA

Talking with journalists can seem intimidating, but popular media plays a key role in communicating your research or expertise to the public

BY HELEN SANTORO



A critical lesson of the COVID-19 pandemic has been seeing the importance of scientists communicating their findings to the public in an engaging and accessible way. For many psychologists, this may involve talking with the media—something that is rarely covered in graduate school. Consequently, scientists may feel wary when asked to speak with journalists or refuse to do so altogether.

Popular media plays a vital role in the dissemination of science, and engaging with the press can amplify a researcher's scientific impact (Liang, X., et al., *Journalism & Mass Communication Quarterly*, Vol. 91, No. 4, 2014). Additionally, the public's perception of science and scientists can influence their willingness to support funding of science and technology down the road.

Overall, talking with the media benefits both psychologists and the public. "We publish meaningful, compelling, and much-needed science," said Rheeda Walker, PhD, a clinical psychologist at the University of Houston who has been interviewed about her research on African American adult mental health and suicide by the *Los Angeles Times* and *The Washington Post* and has appeared on ABC's *Good Morning America*.

Yet too often, Walker says, great research ends up getting published in journals but not reaching the public. "Most of us go into this work because we see individuals struggling day to day with issues for which we generate strategies and solutions," said Walker. "That's what motivated me to do more, to be mainstream, to get the message to the folks who need it most."

She and other psychologists with media experience offer these tips for talking with journalists.

"Your goal is not to sound like the smartest person in the room. Your goal is to translate what the science says in a way that people will better understand it."

Vaile Wright, PhD, APA

PREPARE

Interview prep can involve a variety of tactics, including asking the journalist for a list of possible questions to allow you to think through your responses beforehand. If you're asked to discuss one of your studies, try to boil the research down to a handful of key points in advance. "If you can figure out how to distill them into a few short sentences, that's particularly useful," said David Nussbaum, PhD, an adjunct professor of behavioral science at the University of Chicago who helps researchers share their findings with the public and is launching Psychgeist Media, a nonprofit that is focused on this work. He has also written for *The New York Times* and *The Guardian*.

Vaile Wright, PhD, APA's

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senior director of health care innovation, who has been interviewed around 400 times since 2016 by CNN, *The New York Times*, and other publications, likes to look up peer-reviewed articles on the topic beforehand and handwrite her notes, which she finds helps her remember the content well. She also Googles some of the big talking points that are likely to come up during the interview, which helps her find clear wording that laypeople can easily digest. It is also common for researchers to be asked to do an interview in response to a recent news event, Walker noted. If that's the case, make sure to read as much as possible on what happened to prepare to comment.

This level of preparation can greatly alleviate fears of being misquoted. "Writing my answers out means that I can be sure I'm never misunderstood or misquoted. It gives me peace of mind that I know what I've said," said Laurie Santos, PhD, a psychology professor at Yale University who is interviewed frequently by the media about her popular Psychology and the Good Life class, including by *Vice* and *Insider*.

Psychologist Jonathan Wai, PhD, who studies educational policy through the lens of psychology at the University of Arkansas, looks up the journalist and the publication to get a better sense of what they are looking for before accepting an interview request.

If you feel uncertain about any media request—if you're unsure about the topic or the publication seems one-sided—keep in mind that you don't always need to say yes. "I have declined interviews when it was a topic that I didn't feel that I was proficient in discussing," said Walker.

Wai has turned down interviews as well. "My main goal now is to try to point journalists to individuals who have done primary empirical work on the specific issue at hand and to comment less on issues I simply do not know much about based on my research experience," he said.

KNOW THE AUDIENCE

The big question to remember when being interviewed is: What is my goal? "Your goal is not to sound like the smartest person in the room. Your goal is to translate what the science says in a way that people will better understand it," said Wright. "If you go into it with that sense of, 'I'm trying to educate,' that helps form the language that will be most helpful to people." A good analogy to use, Wright noted, is: How would I explain this concept to a family member?

This may be difficult, as science can be very nuanced, and many researchers are accustomed to using technical language. "It is OK to deviate from the jargon," said Walker. "We have to think big picture: Is the big picture that we want to keep the science hostage from the audience? Or is the big picture that we really want to be able to change the lives of real people?"



YAKOBCHUKOLENA/GETTY IMAGES

To share your knowledge with the media regularly, you can join your institution's expert list and help communicate much-needed science to the public.

This is particularly important for radio or podcasts, as they "are more conversational, and so a bit more of a verbal dance," said Wai. "For print, having the conversation is really about helping shape the story and thinking of the writer, giving them the background, whereas for radio things are more improvisational."

One helpful strategy for all media is to come up with clear, concise sound bites about your work that will make for great quotes during the interview. "Rather than stringing together a series of insights and caveats in a single sentence, break your thoughts up into smaller pieces," said Nussbaum. "Ask yourself what key idea you want [the audience] to take away and try to figure out the clearest, most interesting way of conveying it."

Wright agrees with this tactic. "Where people get into trouble is overtalking. In their well-intended effort to try to get as much information as possible, sometimes the sound bite gets lost, and then you're less likely to get that information out there," she said. "Know when less is more."

Tell the interviewer when you don't know the answer to a question. "It's OK to say, 'I don't know,'" said Walker. "That's what we do in science. We hypothesize; we come up with potential answers based on what we know."

GET SOME TRAINING

Just like other aspects of your career development, reaching out for help and guidance about talking with the media is always a good idea. "I really can't say enough how important it is to get some professional training," said Wright. "If you're fortunate enough to have some professional development money through your university or your organization, connecting yourself with a company that helps people in learning how to do this type of communication is really critical."



Get feedback from professionals about your facial expressions, poise, and demeanor to help you prepare for on-camera media interviews.

When Wright first started talking with the media, she worked with a former reporter who performed mock interviews, both on and off camera, and provided feedback about her quotes, facial expressions, demeanor, and more. "While the mock interviews and getting feedback can be really hard, it's also really helpful," she said. "It's a continual learning process."

"We have to think big picture: Is the big picture that we want to keep the science hostage from the audience? Or is the big picture that we really want to be able to change the lives of real people?"

Rheeda Walker, PhD, University of Houston

There are also many online resources that offer tips on how to talk with the media, including one from APA's Publishing Office (see Resources). This guide helps psychologists prepare for a range of situations, such as interviews for print publications, radio, television, and videoconferences.

Ultimately, the best way to improve is through practice. "So, if you want to do better, seek out more opportunities to talk to the media," said Santos.

For academic psychologists who wish to be interviewed more often, Walker advises joining your institution's expert list, which provides journalists with

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a searchable catalog of faculty members who are knowledgeable in specific topic areas. There is also the APA's Media Referral Service, along with other expert databases specifically for underrepresented scientists, including 500 Women Scientists, 500 Queer Scientists, and Diverse Sources.

AVERT THE NEGATIVE COMMENTS

Another thing that researchers tend to worry about after talking with the media is how the audience will respond. Unfortunately, with social media, it's hard to avoid receiving some negative comments. Don't let criticism affect your confidence. "Get someone else to skim through comments and emails and pick out the ones you should see," said Nussbaum. "Put a time limit on how many you'll respond to if there's a large number."

Similarly, if someone on Twitter or another social media platform comments in a way that makes Wright uncomfortable, she doesn't engage with them directly. But negative comments don't always mean that you haven't made a positive impact, she said. In some cases, people have asked her for help in finding a therapist on the heels of what started as a somewhat negative exchange. "The fact that I'm reaching people and that people are then being motivated to seek out help—I find that very rewarding."

Walker, whose work focuses on the science of suicide and African American adult mental health, has had people write her letters thanking her for recognizing their struggle or asking for help. This can be overwhelming, and it's critical to recognize your own limitations and understand that while your message may reach tens of thousands of people, you can't personally help each one, Walker said. "That is the hardest part for me."

And if you end up being interviewed but not getting quoted in the article, or only getting quoted once, that is also OK, Wai said. "It's crucial for scientists to realize that science journalists are busy people doing their best," he said. "No matter whether you get quoted, or get quoted in a way you don't love, it's OK. It is important to engage, and doing that and trying to educate the public is a worthwhile goal." ■

RESOURCES

How to work with the media
APA
www.apa.org/pubs/authors/working-with-media

Make your science make sense
Alan Alda Center for Communicating Science
https://pages.apa.org/alan-alda-training

Trainings on science, communication, and leadership
COMPASS
www.compasssscicomm.org

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INTERVENTIONS FOR MEDICALLY VULNERABLE PATIENTS

The Duke Digital Health Science Center is leveraging tech to help people make choices that improve their health

BY KIRSTEN WEIR

Post-2020, it's not a stretch to imagine a prominent role for digital technologies in health care. But Duke University researcher Gary Bennett, PhD, was leading that charge well before "COVID" became a household word. "I've long believed, strongly, that digital strategies aren't simply an option to connect with medically vulnerable populations—they're the best option. On the back end of the pandemic, that notion is much less controversial than it once was," he said. "The explosion in the last 18 months in the digital health space has been an amazing sea change. The pandemic has had an unexpected impact on this field, and I don't think there's any turning back."

As director of the Duke Digital Health Science Center, Bennett works with his colleagues to design and test digital health interventions to address the needs of medically vulnerable populations. The multidisciplinary center develops behavior-change interventions to treat obesity and other chronic diseases, with the goal of using digital tools to eliminate health disparities. The center's core team includes 13 researchers, staff, and graduate students, and their collaborators include psychologists, physicians, nutrition scientists, registered dietitians, public health experts, software engineers, and statisticians.

More than 80% of adults living in low-income households in the United States own a cell phone, and almost half own a smartphone. For Bennett and his team, those devices offer an unparalleled opportunity to help people make choices that improve their health. "The exciting thing about working in the digital sphere is the possibility of reaching so many people. You can break down a lot of barriers to receiving health services," said data manager and analyst Sandy Askew, MPH. "It's exciting to be on the cutting edge and trying to find innovative solutions to help as many people as we can."

The center's current research focuses on people who have

been historically excluded, including people from non-White populations, patients in low-income households, and those who live in rural settings. Often, Bennett's study participants fall into two or three of those categories.

"When you're thinking about how to deliver evidence-based treatment to populations at scale, the classic challenge has been how to access medically vulnerable populations in ways that allow us to deliver interventions well," he said. "We have long been of the opinion that we can do that best through digital."

PERSONALIZED GOALS

Bennett earned his PhD in clinical health psychology from Duke in 2002. He headed north for a postdoctoral fellowship at the Harvard School of Public Health, then joined the Harvard faculty for several years before returning to Duke in 2009. Officially, he launched the Duke Digital Health Science Center in 2017. But his work on digital interventions for obesity began much earlier—because obesity is such a significant contributor to health problems in at-risk groups, and because he saw a path for behavior change and digital technology to make a big impact. Patients in medically vulnerable groups are more likely to have obesity and to suffer from the chronic conditions that often go along with extra weight. What's more, existing obesity treatments have been shown to be less effective in those groups.

Technology, he thought, could shrink the gap. While still at Harvard, Bennett developed the interactive obesity treatment approach (iOTA), a model designed to provide participants with personalized behavior-change goals. iOTA uses personalized algorithms to tailor goals for participants in areas such as diet, physical activity, sleep, and stress management. Participants monitor their progress toward the goals, and the system provides customized feedback through an app, text messages, or interactive voice response. "Every time a person logs self-monitoring data about how they're doing with their goals, they get personalized feedback," Bennett said.

The iOTA technology forms the backbone of multiple studies. In the randomized controlled "Track" trial, Bennett and colleagues, including Dori Steinberg, PhD, RD, a consulting associate professor and faculty member of the Duke Digital Health Science Center, studied an obesity intervention for adults living in low-income households who had obesity, high blood pressure, high cholesterol, and diabetes. Participants received customized goals (such as avoiding fast food, practicing portion control, and walking more than 7,000 steps per day) and tracked their progress via text prompts.

Counselors reached out to participants periodically to provide additional feedback and troubleshoot barriers to success. Participants also weighed in regularly from home using a cellular-connected scale, and the data were shared with their primary care providers at community health centers. "These digital treatments are built into the fabric of the health system," Bennett said. "We think the best way to do these trials isn't in a highly controlled academic care setting but where patients actually receive their care."

More than 40% of the intervention participants lost at least 5% of their baseline weight—a threshold that has been associated with subsequent improvements in health. Those who completed more than 80% of their self-monitoring lost significantly more than those who were less engaged. In other words, the intervention was effective for those motivated to use it (*American Journal of Preventive Medicine*, Vol. 55, No. 6, 2018).

A similar study explored the iOTA approach not for weight loss but for weight gain

FURTHER READING

Dose–response research in digital health interventions: Concepts, considerations, and challenges
McVay, M. A., et al.
Health Psychology, 2019

Provider counseling and weight loss outcomes in a primary care–based digital obesity treatment
McVay, M., et al.
Journal of General Internal Medicine, 2019

Comparing self-monitoring strategies for weight loss in a smartphone app: Randomized controlled trial
Patel, M. L., et al.
JMIR mHealth and uHealth, 2019



UNDEFINED/SHUTTERSTOCK

prevention. "Half of Americans with obesity are not ready to lose weight at any given moment, and that's particularly common in medically vulnerable groups, where people have a lot of other things going on," Bennett said. But preventing additional weight gain can reduce the risk of comorbidities such as diabetes and high blood pressure. "When patients don't have high motivation or readiness for weight loss, weight gain prevention is an excellent secondary option," he said.

In the "Shape" trial, Bennett's team tested their intervention in Black women with overweight or low levels of obesity. It followed the same format as the Track trial, with tailored behavior-change goals and skills training materials, weekly self-monitoring via interactive voice response, monthly counseling calls, and a gym membership. "We showed we could prevent weight gain in that group for almost 2 years," Bennett said. At 12 months, 62% of participants were at or below their baseline weight, compared with 45% of participants receiving primary care as usual. And those weights were maintained at 18 months (*JAMA Internal Medicine*, Vol. 173, No. 19, 2013).

Following up on that project, Bennett and his team are expanding the weight gain prevention intervention beyond Black women to an entire clinical population of historically and intentionally excluded patients. The 5-year "Balance" protocol, funded by the National Institutes of Health (NIH), tests the digital intervention among patients receiving primary care through a network of federally qualified community health centers in central North Carolina (Berger, M. B., et al., *BMC Public Health*, Vol. 19, No. 596, 2019).

PRECISION PUBLIC HEALTH

The ongoing Balance study is designed using a so-called pragmatic format. Unlike traditional explanatory trials, which are done in highly controlled environments, pragmatic trials are designed to test interventions under messy real-life conditions. "In the realm of weight loss research, participants often lose weight under controlled conditions. But what happens when they go back to the real world?" said Miriam Berger, MPH, the center's research program lead, who manages several digital health trials. Pragmatic trials like Balance also remove a lot of the exclusions—such as strict parameters around age, comorbidities, or body mass index—that are common in obesity intervention trials. "Balance includes adults of all ages, with no upper age limit. It only requires a text-enabled phone, and it's available in both English and Spanish," said Berger. Funders such as NIH are increasingly backing pragmatic trials to identify interventions that work as well in someone's kitchen as they do in an academic lab.

In another project, the team is taking an approach that is both practical and progressive. "We're thinking about how to take these technologies and deliver them at scale in a way that preserves their evidence base," Bennett said. To optimize the texting intervention used in many of his obesity trials, Bennett is using a framework known as multiphase optimization strategy (MOST) to determine which components of an intervention are most effective. "After a clinical trial, we just know that the whole package worked, but we don't always know which parts of the intervention are responsible for the most positive effects," he said. "MOST allows us to test the different elements to develop interventions that only contain active treatment components."



COURTESY OF DR. GARY BENNETT

Dr. Gary Bennett (fourth from left) and lab team members at the Duke Digital Health Science Center.

It's clear, for instance, that feedback for the user is an important component of the iOTA approach. But is it best to provide feedback each time the participant logs a healthy behavior, or to send a summary once a day, or once a week? Is it more motivating to tell a participant that she's eating 50% more vegetables than she did last week or to tell her she's eating more veggies than 50% of the other participants using the intervention? In the ongoing

"Charge" trial, Bennett and his colleagues are testing 32 different experimental combinations to determine the impact of each stand-alone component—on their own and in combination with other elements (*JMIR Research Protocols*, Vol. 10, No. 1, 2021). "Sometimes the words you use, even the shape or color of a button, can have powerful effects on how likely someone is to stay engaged in the intervention," Bennett said. "We're finding that some components matter a lot, some matter less, but many of them make a big difference in interaction with one another."

Optimizing the intervention is a key step toward making digital health tools scalable, Bennett said. And it's an important step toward making apps that can truly stand on their own. "One of the biggest contradictions in the digital health literature is that most of what we know about digital health science is actually taken from studies that have included human counselors, including our own," he said.

Bennett and his colleagues aim to create stand-alone obesity treatments that can be delivered exclusively through texts or apps, without the need for health coaches or counselors. "Digital health allows us to deliver interventions to large numbers of people. The big guiding question is how to leverage the technological algorithms to make them flexible enough to meet the needs of individuals," he said. "Can we make an app that's flexible enough to deliver hundreds of potential iterations of a treatment to meet the needs of an entire population?"

A FLEXIBLE BEHAVIOR-CHANGE TOOL

The team is also branching out beyond obesity, drawing from their expertise in behavior change to create other digital health interventions. The ongoing "Nourish" trial is testing an intervention to promote the Dietary Approaches to Stop Hypertension (DASH) eating plan among adults with hypertension. The goal of this intervention is not for participants to lose weight but for them to adopt a dietary pattern that has been shown to lower high blood pressure (Miller, H. N., et al., *Contemporary Clinical Trials*, Vol. 109, 2021).

Meanwhile, Melissa Kay, PhD, an assistant professor in Duke's Department of Pediatrics and an affiliate with the Duke Digital Health Science Center and the Duke Center for Childhood Obesity Research, is using similar digital technology to improve maternal diet quality. She's wrapping up a pilot study that used a text-based intervention to help mothers living in low-income households make better food choices for themselves and their babies, including support with breastfeeding decisions and responsive feeding. "What's so great about iOTA is that it's a behavior-change technique. It happened to start with weight, but it can be applied to other behavioral outcomes," Kay said. "How can we change behavior to improve health? Dr. Bennett has figured out a way to do that using digital technologies."

As a technology evangelist, Bennett is often an early adopter of new tech, and he is frequently spotted on Twitter discussing digital health and behavior change (@drgarybennett). But he takes care to meet his study participants where they are, adapting interventions to be delivered in texts or voice messages when smartphones aren't an option. "In some ways, we retain old-school technology when it's the most effective way to reach people," Askew said. "We're always finding a balance between reaching people now and thinking about the technology people will be using 2 years down the line."

Whatever technology they use, Bennett and other members of the center are committed to making a measurable difference in the lives of medically vulnerable populations. And the pandemic has lit a fire under those efforts. "Both comfort with digital health approaches and reimbursement options for digital health have increased dramatically," Bennett said. In the community health centers he works with in North Carolina, which serve rural and disinvested communities, 70% of clinic visits have been virtual during the pandemic. "This is a real option, and one that I think will challenge us in psychology to think differently about the ways we deliver care."

And psychology, he adds, has much to offer as the digital health field continues to grow. "There's a significant channel for early career scholars to find very fulfilling careers in this space," he said. "The vast majority of our current public health challenges are predominately behavioral in nature, and psychologists have a critical role to play." ■

RESEARCH FOCI

The Duke Digital Health Science Center is:

1. **Designing and testing digital health tools to treat obesity and prevent weight gain**
2. **Testing digital health tools to improve eating habits in mothers, children, and people with high blood pressure**
3. **Optimizing stand-alone digital interventions to make them more scalable**
4. **Using innovative methods to determine the relative impacts of each piece of a multicomponent health intervention**

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CALIFORNIA

ASSISTANT OR ASSOCIATE PROFESSOR OF PSYCHOLOGY AND ASSOCIATE DIRECTOR OF CLINICAL TRAINING: The Rosemead School of Psychology at Biola University is conducting a search for an Assistant or Associate Professor of Psychology and Associate Director of Clinical Training to begin in August 2021. This individual will teach in our APA-accredited Clinical Psychology graduate programs, mentor student research, provide clinical supervision, and help oversee our practicum training sequence. Candidates will hold a PhD or PsyD in Clinical or Counseling Psychology and be licensed (or license-eligible) to practice as a psychologist in California. Strong candidates will have a record of successful scholarship and an interest in the integration of psychology and theology. They will also have significant experience in the area of psychodynamic therapy and/or psychotherapy integration. Applicants who bring diverse racial-ethnic-cultural perspectives to their teaching and scholarship are especially encouraged to apply. Clinical training at Rosemead builds on our psychodynamic legacy by providing contemporary, evidence-based training with a foundational emphasis on the therapeutic relationship. Our experiential therapy curriculum includes exposure to a variety of theoretical approaches including psychodynamic, interpersonal, cognitive-behavioral (DBT), and emotional focused therapy. Rosemead includes a counseling center, serving Biola students and the broader community, while also hosting an APA-accredited internship. Rosemead also publishes the Journal of Psychology and Theology. As a private Christian University, Biola seeks to develop students in mind and character to impact the world for Christ. Biola seeks faculty who are in agreement with the Biola Doctrinal Statement and Standard of Conduct, with a compatible interest in relating psychological theory, research, and practice to the Christian faith. Applicants should submit a completed application for the position, curriculum vitae, and a one-page statement of interest to: https://biola.csod.com/ux/ats/careersite/1/home/requisition/1816?c=biola.

PSYCHOLOGISTS: PsychStrategies is looking for experienced Psychologists to join our group practice of over 30 skilled clinicians. We are the largest independently owned Mental Health group in the northern San Francisco Bay Area, with offices located in Petaluma and Santa Rosa. Our model is private practice within a group practice setting. We offer each therapist the opportunity to choose how many days he/she works as well as how many clients are seen within each day worked. As a company we provide referrals, billing services, offices, telephone services, a full-time administrative staff, and an Intake Coordinator who matches prospective clients with the most appropriate therapist. Clinicians maintain a full schedule. We work with all major insurance companies. Our company culture is collegial and friendly and we have been voted one of the "Best Places to Work" by the North Bay Business Journal since 2016. PsychStrategies, founded in 1994, is a psychological corporation that is owned by the Board of Directors. Each Board member is also a therapist within the company. Our goal as a company is to support therapists in being able to do the work they love, while the administrative staff handles the business aspect of running a practice. For more information contact Sara Mitchell at (707) 303-3201 or email smitchell@psychstrategies.com.

FLORIDA

LICENSED PSYCHOLOGIST BEHAVIORAL MEDICINE SPECIALIST WITH HOSPITAL TRAINING (BILINGUAL ENGLISH/SPANISH): Position available at Cartaya Medical Psychology Group to work with thriving group practice. Responsibilities to include office outpatients, consulting in SNF's, ALF's, and hospitals. Neuropsychology training a plus. Flexible hours and freedom to pursue one's own clinical interests. The newly contracted associate will be provided with credentialing services to become providers in insurance panels so the practice can bill on his/her behalf. Annual revenue would be based on hours billed. There is potential for a six-figure salary with full-time status. Email curriculum vitae to agent.cart@gmail.com.

MASSACHUSETTS

LICENSED PSYCHOLOGIST: The Department of Psychiatry/Behavioral Sciences at Boston Children's Hospital is seeking a licensed psychologist to join the Adolescent Outpatient Eating Disorder program. You will join a multidisciplinary assessment and treatment team in the Division of Adolescent Medicine. Responsibilities include: initial clinical assessments and ongoing treatment services to patients with eating disorders and their families and additional consultation to general Adolescent practice. Applicants from diverse backgrounds and/or with Spanish fluency are encouraged to apply. Position involves telemedicine and in-person patient care in Boston and Waltham locations. Position ideal for psychologist interested in an academic and clinical career in eating disorder treatment. Successful candidates will have experience using evidence-based treatments and working with patients with eating disorders and their families. We prefer a candidate trained/certified in family-based treatment. Additional training in CBT and DBT a plus. A wide variety of education opportunities is provided. A Massachusetts health service provider license in psychology is required prior to assuming the position. Academic appointment at Harvard Medical School anticipated at Instructor or Assistant Professor level. Graduates of APA/CPA-accredited doctoral programs and internships preferred. Submit cover letter detailing relevant experience and curriculum vitae

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PEDIATRIC NEUROPSYCHOLOGY

Cambridge Health Alliance (CHA) is pleased to announce an opening for a full-time faculty pediatric neuropsychologist to join our award-winning Division of Child and Adolescent Psychiatry. CHA is a community-based health system that includes the Cambridge, Everett, and Somerville Hospitals. The child and adolescent division provides outpatient care to youth and families in two outpatient clinics, three high school-based clinics, and throughout CHA's primary care clinics via integrated care consultation.

- Provide care for children and adolescents with complex psychiatric and developmental conditions.
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- Combine advanced clinical care with academic engagement.
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- Opportunity to engage in clinical research that is relevant to our community-oriented mission
- Serve a culturally and ethnically diverse population
- CHA is a teaching affiliate of Harvard Medical School (HMS) and academic appointments are available commensurate with medical school criteria.

Applicants must hold a doctoral degree in clinical or counseling psychology from an APA/CPA accredited program, have completed an APA/CPA accredited pre-doctoral internship and postdoctoral residency in Neuropsychology. Qualified candidates will also be board certified or eligible for board certification and must be licensed in the Commonwealth of Massachusetts.

Experience with assessing cognitive and socio-emotional functioning associated with severe mental illness, neurodevelopment, and neurological/medical complications from early childhood to early adulthood in a culturally diverse community health settings is preferred.

CHA offers competitive compensation and a comprehensive benefits package including health and dental insurance, 403b retirement accounts with matching, generous PTO, CME allotment (time and dollars) and much more.

Qualified candidates may submit their CV through our website at **www.CHAproviders.org**, or by email to Melissa Kelley at **ProviderRecruitment@challiance.org**. The Department of Provider Recruitment may be reached by phone at (617) 665-3555.

In keeping with federal, state and local laws, Cambridge Health Alliance (CHA) policy forbids employees and associates to discriminate against anyone based on race, religion, color, gender, age, marital status, national origin, sexual orientation, relationship identity or relationship structure, gender identity or expression, veteran status, disability or any other characteristic protected by law. We are committed to establishing and maintaining a workplace free of discrimination. We are fully committed to equal employment opportunity. We will not tolerate unlawful discrimination in the recruitment, hiring, termination, promotion, salary treatment or any other condition of employment or career development. Furthermore, we will not tolerate the use of discriminatory slurs, or other remarks, jokes or conduct, that in the judgment of CHA, encourage or permit an offensive or hostile work environment. Furthermore, we will not tolerate the use of discriminatory slurs, or other remarks, jokes or conduct, that in the judgment of CHA, encourage or permit an offensive or hostile work environment.

to Cleo Hereford, Department of Psychiatry/Behavioral Sciences, Boston Children's Hospital, 300 Longwood Avenue, Boston, MA 02115 (cleo.hereford@childrens.harvard.edu). We are an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.

MISSOURI

PSYCHOLOGIST: The Washington University School of Medicine's Division of Gastroenterology is searching for a full-time clinician track faculty member of any rank. The appointee will provide assessments and evidence-based interventions for patients in gastroenterology as part of a collaborative multi-disciplinary team of professionals providing integrated outpatient services to gastroenterology (GI) patients. Typical patients have GI disorders such as irritable bowel syndrome, functional pain, GI motility disorders, inflammatory bowel diseases, celiac disease, and others. Opportunities for program development, teaching, and research are available depending on interest. We especially welcome applicants with training and experience in psychogastroenterology, behavioral medicine, biofeedback, and evidence-based treatment for medical and psychiatric conditions. Academic rank and compensation will be commensurate with experience. Qualified applicants must 1) have a PhD in Clinical, Counseling or Clinical Health Psychology from an APA-accredited doctoral program, 2) hold or be eligible for a Missouri license in Psychology, and 3) have completed an internship at an APA-accredited site. Submit the application to https://facultyopportunities.wustl.edu, Department of Medicine - GI Health Psychologist) including a cover letter, curriculum vitae, and three letters of recommendation. Washington University in St. Louis is committed to the principles and practices of Equal Employment Opportunity and Affirmative Action. It is the university's policy to recruit, hire, train, and promote persons in all job titles without regard to race, color, age, religion, gender, sexual orientation, gender identity or expression, national origin, veteran status, disability, or genetic information.

NEW YORK

RESILIENCY PROGRAM LEADER: Health Research, Inc. Roswell Park Division is seeking a full-time Resiliency Program Leader who develops, manages, directs, and delivers Resiliency programs designed to meet the needs of all staff and other individuals as necessary. The Resiliency Program Leader develops and manages programs in collaboration with the Wellness program and other elements of the Psychosocial Oncology team; serves as a resource for organization staff; develops and manages educational and training functions of the department. The Resiliency Program Leader supervises the Wellness Program Coordinator for activities and educational programs in the staff resiliency and wellness programs at Roswell Park Comprehensive Cancer Center; implements a comprehensive program that supports these activities for staff; collaborates with community partners to create a network of Resiliency, Stress & Burnout Reduction, and Wellness programming available to staff of Roswell Park; collaborates with academic investigators to develop an initial and long-term research agenda involving resiliency, stress and burnout reduction and wellness for healthcare workers and staff. This position will be responsible for identifying and pursuing grant opportunities and other sources of funding to support research and educational initiatives; managing Resiliency programming budget and supports maintaining accreditations for the program. Applicants must be licensed or license eligible to practice as a Psychologist in the State of New York. In addition, applicants must have a PhD in Psychology with graduation from a clinical or counseling psychology, health psychology, or related psychosocial area with completion of one (1) year of internship. Interested applicants can apply by referencing posting #R-11993 to https://roswellpark.wd5.myworkdayjobs.com/ExternalCareers.

OHIO

PSYCHOLOGISTS: The Center for Behavioral Health at Cleveland Clinic is currently recruiting Psychologists for outpatient primary care operations in Northeast Ohio. Applicants must have completed a doctoral degree from an APA- or CPA-accredited psychology program, completed an internship with experience in health psychology and have completed a postdoctoral fellowship. Eligibility for licensure in Ohio is essential. Strong candidates will possess expertise in the provision of evidence-based treatments. This dynamic position commands a competitive salary enhanced by an attractive benefits package including excellent medical, dental, and vision coverage; life and disability insurance, malpractice insurance; generous time away coverage for vacation, sick time, holidays, and CME time; and highly competitive retirement savings plans with matching employer contributions. For more information and to apply, email your current curriculum vitae and cover letter to: Nate Elting, Senior Physician Recruiter at eltingn@ccf.org.

PENNSYLVANIA

PSYCHOLOGIST OPPORTUNITY IN DANVILLE, PENNSYLVANIA: Geisinger is seeking a Psychologist to lead Professionalism and Provider Support programming across the enterprise. As part of our Center for Professionalism and Well-Being, you will: Lead programs within the Center, serving as the clinical subject matter expert with program support resources; Use design strategies to co-create future programming in partnership with caregivers, leaders, and colleagues; Actively work with teams to enhance teamwork and develop environments of psychological safety; Engage with employees who are experiencing emotional exhaustion, trauma, burnout, grief, loss, etc.; Discuss information confidentially, including medical history and social determinants of health; Make referrals to additional behavioral health services that would best fit the employee's situation; Be a crucial member of a multi-disciplinary team committed to supporting the personal and professional needs of our caregivers. Preferred Qualifications: 3+ years of clinical patient care, with a preference for those who have worked in a healthcare setting; Experience in coaching peers and leaders in professional behavior and positive interactions; Knowledge of preventative measures and reduction strategies for caregiver emotional exhaustion. We take pride in the support we provide: Our Center for Professionalism and Well-Being promotes the well-being of employees through cultural enhancement programs, targeted team interventions, individual support, and advocacy efforts; The Center partners with executives and leaders across the system to create a culture of psychological safety, respect, well-being, and efficiency. If you would like to discuss these positions further, contact Karen Rubbe, Senior Provider Recruiter, at klrubbe@geisinger.edu. An Affirmative Action/Equal Opportunity/ADA/Veterans Employer.

PEDIATRIC PSYCHOLOGIST OPPORTUNITIES IN DANVILLE, PENNSYLVANIA: Geisinger is seeking licensed or license eligible in Pennsylvania child and pediatric psychologists to work in general outpatient and integrated specialty settings. As part of our Behavioral Health and Psychiatry team, you will work full-time in our primary care behavioral health program; join a team of behavioral health providers, 30 pediatric psychologists, social workers, psychiatrists, and learners (interns, postdocs, social work trainees) who work collaboratively with interdisciplinary medical specialty teams and other behavioral health disciplines in a high-quality academic healthcare system; deliver evidence-based treatment; conduct consultations to medical providers; and educate and train medical professionals on behavioral health topics. We take pride in the support we provide: competitive salary and benefits, including continuing education funding and time; no nights, weekends, or on-call service is required; hybrid schedules of in-clinic and work-from-home via telehealth are supported; our doctoral internship in clinical psychology has been accredited by APA for 35 years; core faculty members of our training programs receive protected time for supervision and teaching; opportunities for program development include both clinical services within the Department of Psychiatry and Behavioral Health and initiating/expanding specialty health integration; we offer several postdoctoral fellowship programs in psychology specialties; and we are committed to the expansion of behavioral health, with sites located in State College, Danville, and the Wilkes-Barre/Scranton areas of Pennsylvania. If you would like to discuss these positions further, contact Karen Rubbe, Senior Provider Recruiter, at klrubbe@geisinger.edu or visit https://jobs.geisinger.org/psychiatry-behavioral-health. An Affirmative Action/Equal Opportunity/ADA/Veterans Employer.

VIRGINIA

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tice in Northern Virginia. Salary range is between $225,000 and $275,000 annually. Psychologists interested in part-time work and testing are also encouraged to apply. To learn more about our practice, we invite you to visit us at: www.ashburnpsych.com. Serious applicants are also invited to call our office manager, Christine Kutt, at: (703) 723-2999.

WASHINGTON

SCHOLARLY ASSISTANT PROFESSOR: The Department of Psychology at Washington State University invites applications for a full-time career-track position at the rank of Scholarly Assistant Professor on the Vancouver campus. Scholarly Assistant Professors are expected to teach exceptionally well, meaningfully contribute to the culture of the department, and add value to the undergraduate experience. This is a promotion-eligible position. The successful applicant will be a scholar in any area of industrial/organizational psychology who is strongly committed to developing quality educational experiences while also being deeply interested in mentoring and outreach practices and contributing to campus diversity, equity, and inclusion efforts. It is anticipated that the successful candidate will begin the appointment on August 16, 2022. Job duties: Duties include: 60% instruction, teaching three courses/semester; 20% departmental, university, and professional service; and 20% scholarly activity (e.g., research/scholarship, educational leadership, outreach, practice, or other creative activity). The position involves a focus on developing high-impact applied undergraduate educational experiences, including teaching our undergraduate practicum course, and contributing to the growth of the Personnel Psychology/Human Resources program. Opportunities for graduate teaching and mentoring also exist. Review of applications began March 1, 2022 and will continue until the position is filled. Apply online at https://bit.ly/Psych_Prof_IO. At the time of application, be prepared to submit the following materials: current curriculum vitae, cover letter addressing the required and preferred qualifications, teaching statement, statement of commitment to inclusion, equity, and diversity, and names and contact information of three references. Questions regarding the position can be addressed to Janet DeWitt, Search Committee staff support, jldewitt@wsu.edu.

VIRGIN ISLANDS

PSYCHOLOGIST AND PSYCHIATRIST POSITIONS: St. Thomas East End Medical Center Corporation, a Federally Qualified Health Center (FQHC) located in St. Thomas, Virgin Islands has immediate openings for psychologist and psychiatrist positions. Relocation incentives are available. 1) Psychologist: In support of the mission, psychologist performs all duties related to working as part of the medical provider team providing primary behavioral health services to the patients of the medical center. Additionally, is responsible for the supervision of behavioral staff, as may be directed by the Behavioral Director. Also provides primary care to all patients as appropriate to the psychologist's specialty, which also involve developing a plan of care for each patient. 2) Psychiatrist: In support of the mission, physician performs all duties related to working as part of the medical provider team providing primary behavioral health services to the patients of the medical center. Additionally, is responsible for the supervision of behavioral staff, as may be directed by the Behavioral Director. Also provides primary care to all patients as appropriate to the physician's medical specialty, which also involves developing a plan of care for each patient. Apply at steemcc.org/JoinUs and submit your application to ctyson@steemcc.org.

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General advertising policy as well as guidelines for use in composing and responding to classified advertisements to be placed in the *Monitor on Psychology*® and APA psycCareers can be found online at bit.ly/APA_ad_policy.

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BY TORI DEANGELIS

DRUG OVERDOSES ARE SKYROCKETING, ESPECIALLY AMONG BLACK MEN



Drug overdose rates among all ethnic groups and both men and women rose significantly from 2019 to 2020, as well as from 2015 to 2020. In 2020, synthetic opioids and pandemic stressors played a big part.

92,000 **Number of Americans who died of drug overdoses in 2020**—a 30% increase from 2019 and a 75% increase from 2015. Three quarters of fatal overdoses in 2020 were from opioids, with more than 60% from synthetic opioids including fentanyl. The number of overdose deaths in 2020 is by far the highest annual total on record.

54.1 Number of **fatal drug overdoses for every 100,000 Black men** in the United States in 2020. That compares with 52.1/100,000 overdose deaths among American Indian or Alaska Native men, 44.2/100,000 among White men, and 27.3/100,000 among Hispanic men. The lowest overdose death rate was among Asian or Pacific Islander men (8.5/100,000).

213% **Increase in the death rate of Black men from drug overdoses,** from 2015 to 2020. Before 2015, Black men were considerably less likely than both White men and American Indian or Alaska Native men to die from drug overdoses. Since then, **the death rate among Black men has more than tripled.**

144% **Increase in overdose fatality rate among Black women in 2020,** with a rate of 18.8/100,000—more than twice the rate in 2015. Despite that increase, American Indian or Alaska Native women continue to have the highest overdose rate among women: 32/100,000 in 2020, about double the number from 2015.

Source: Gramlich, J. (2022). Recent surge in U.S. drug overdose deaths has hit Black men the hardest. Pew Research Center survey of 9,676 U.S. adults conducted in October 2021. Available at https://pewrsr.ch/3GJijTb.

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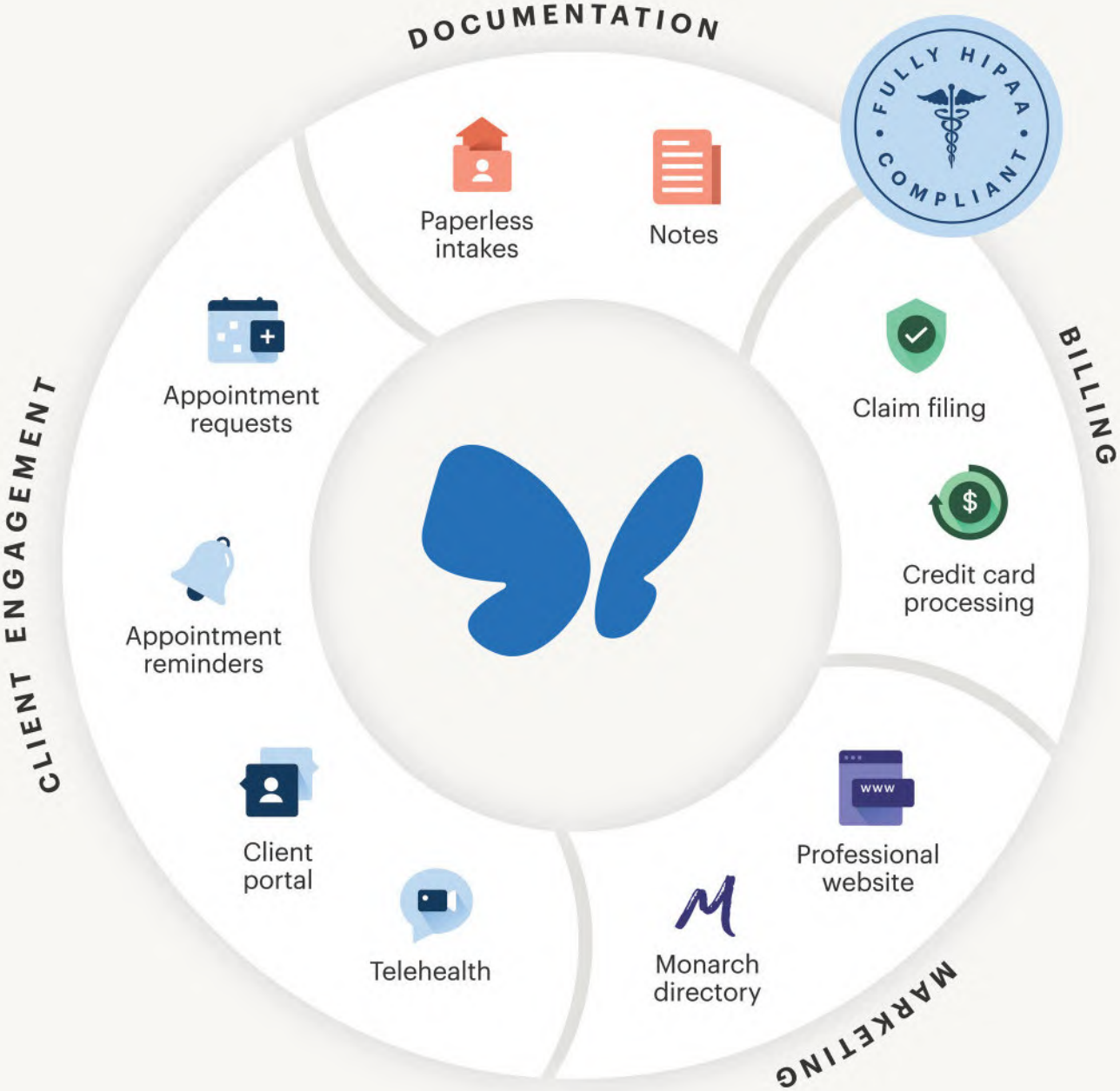
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