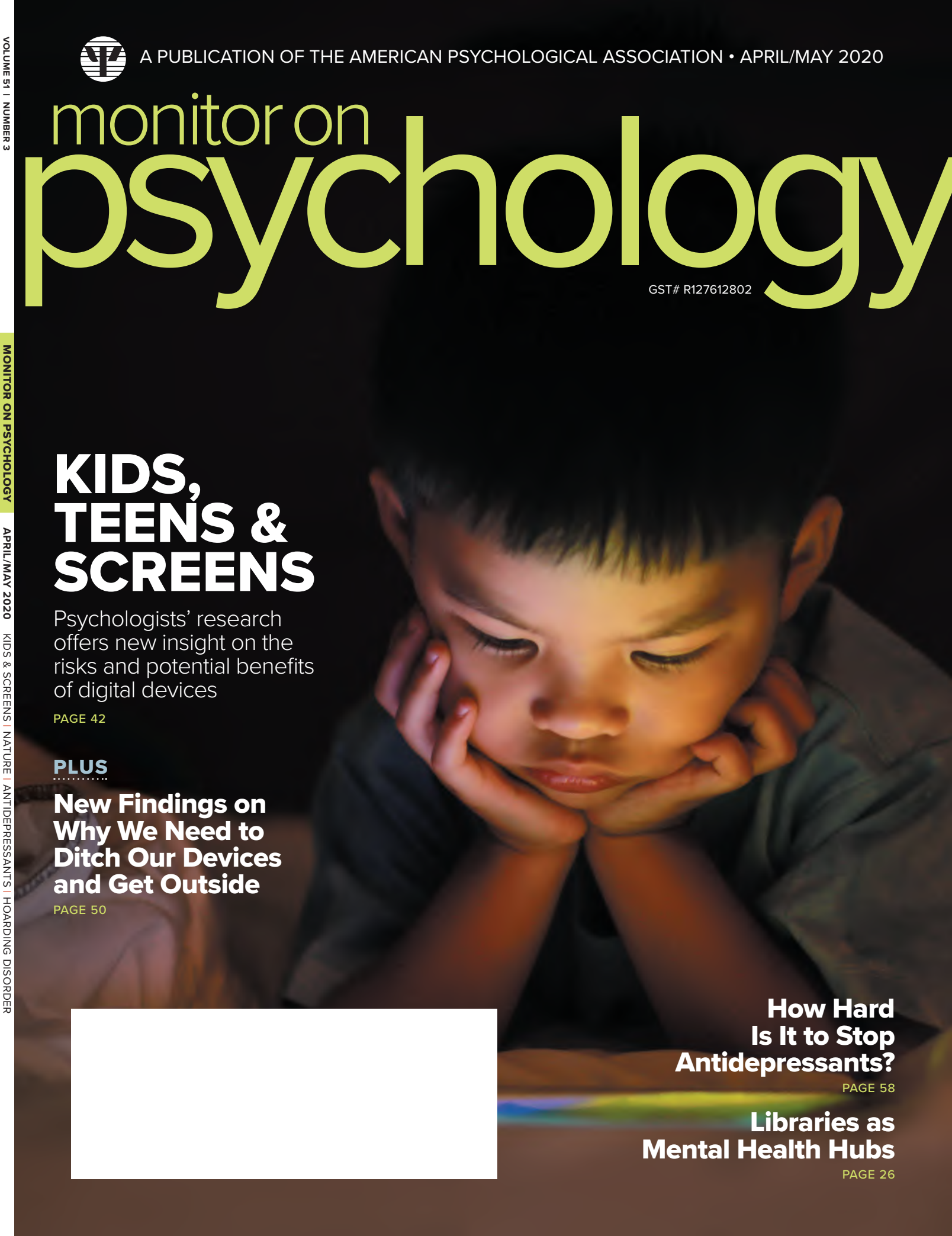
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monitor on psychology

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KIDS, TEENS & SCREENS

Psychologists' research offers new insight on the risks and potential benefits of digital devices

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PLUS

New Findings on Why We Need to Ditch Our Devices and Get Outside

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How Hard Is It to Stop Antidepressants?

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Libraries as Mental Health Hubs

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BPA WORLDWIDE

COVER

WHAT DO WE REALLY KNOW ABOUT KIDS AND SCREENS?

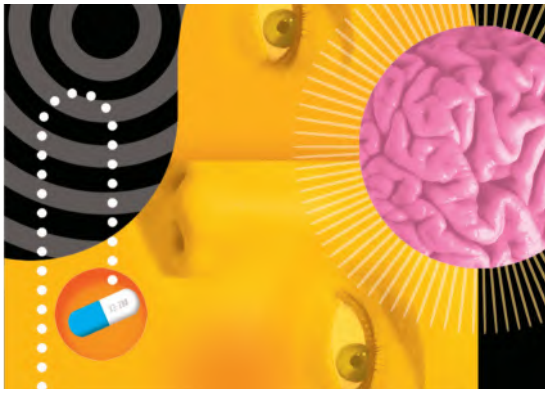
As parents struggle with screen time recommendations, psychologists and other child development experts are taking a deeper and increasingly nuanced look at how children use digital devices and building long-term studies that will help answer complex questions about their risks and potential benefits. *See page 42*

NURTURED BY NATURE

Ditching our digital devices and spending more time outside can benefit our memories, our attention, and even our compassion and empathy, studies show. *See page 50*

COVER: VINNSTOCK/GETTY IMAGES





RIDOFRANZ/GETTY IMAGES

HOW HARD IS IT TO STOP ANTIDEPRESSANTS?

New research backs up the idea that for many people, weaning off antidepressants after taking them for years may be more difficult than previously realized. Psychologists have a role to play in helping patients understand antidepressant withdrawal and supporting them as they make medication decisions. *See page 58*

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Reaching out to faith communities. Page 30

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What makes a super saver? Page 11

CE CORNER

TREATING PEOPLE WITH HOARDING DISORDER

About 2.5% of the population meets the diagnostic criteria for hoarding disorder, a complex and difficult-to-treat condition. Now, armed with new research, psychologists have a better understanding of the cognitive and neural underpinnings of the disorder and are developing interventions that help. *See page 36*



REVITALIZE YOUR TEACHING

"If you look at how the science we are producing makes a difference in the real world, that's interesting to students, and interesting to you."

Richard Miller, PhD, Texas A&M University–Kingsville. See page 66

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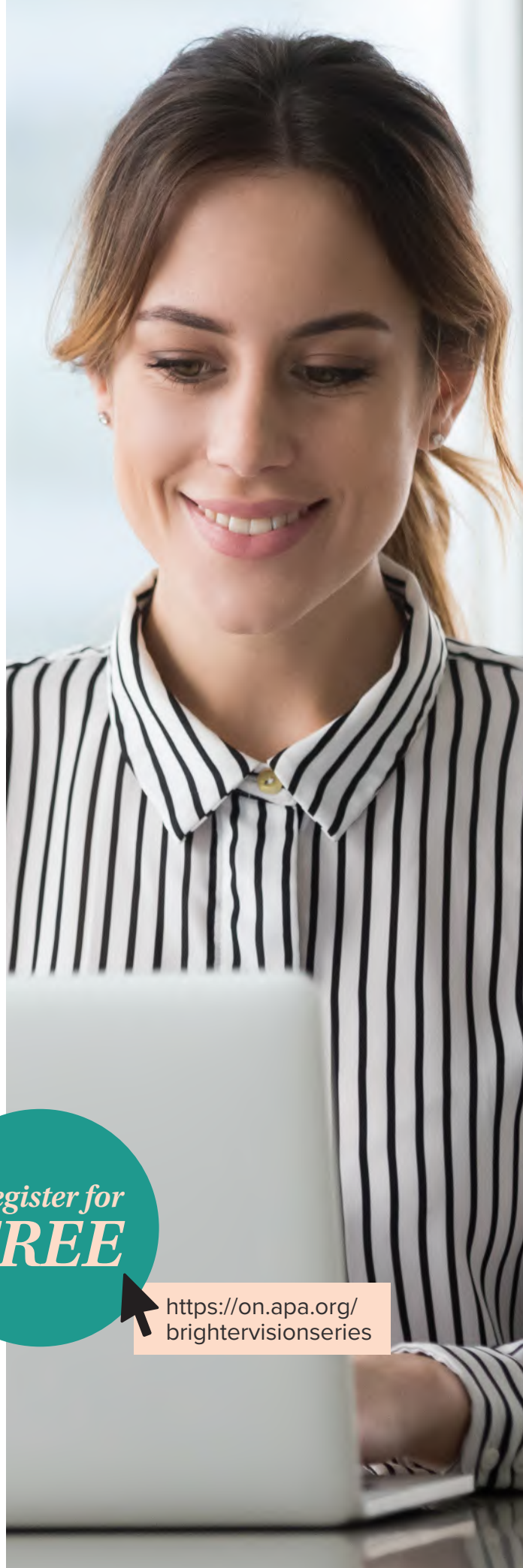
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LEARNING LEADERS OR PASSIVE BYSTANDERS?

It's time to enhance our collective impact by strategically applying our science and skills to address the pressing issues of our time

BY SANDRA L. SHULLMAN, PhD, APA PRESIDENT

In my last column, I shared my aspiration that we as psychologists begin to see ourselves as learning leaders—influential individuals who create change rather than watch it happen. That prompts the question: What's the alternative?

One answer comes from social psychology: the bystander effect. First described by John Darley and Bibb Latané in 1968, the phenomenon refers to people's failure to act in emergency situations when they're part of a group—the belief that "someone else will do it," leading to a diffusion of responsibility.

That same concept, I believe, applies to our field and the way we respond to critical social problems, such as gun violence and climate change, or to issues more specific to our profession and discipline, such as access to quality mental health care. Given that APA's membership encompasses more than 121,000 researchers, educators, clinicians, consultants and students, it's easy to assume there are more than enough leaders and advocates tackling these concerns. But it's clear that there are not—that we need many more psychologists/learning leaders informing crucial debates about our future with our science, evidence, education and voices.



APA President Dr. Sandra L. Shullman

KIRK IRWIN

If you are working on these issues in your community or elsewhere, I applaud you. If you've been an observer until now, I encourage you to move from bystander to learning leader. There are many ways to do this, including by leading community discussions, sending messages to relevant members of Congress and others, doing pro bono clinical work, asking more daring research questions and more.

Topping the list of helping to create a better future for the public and psychology is advocacy. APA is working on dozens of challenges that are critical to the health and well-being of our population, such as reducing suicide rates, improving veteran mental health care and protecting victims of sexual misconduct. These projects are described in detail on the APA Federal Action Network website at www.apa.org/advocacy. Check it out and sign up to get involved.

It's not always easy to leave the comfort zones of our offices, research labs or other employment settings. But moving from bystander to learning leader is empowering and energizing. It also means everything for our future—not just for psychology, but for the world. ■

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LEADING THE WAY ON CHILDREN'S MENTAL HEALTH

APA is bringing psychological science to policymakers and the public in new ways to improve the lives of children and families

BY ARTHUR C. EVANS JR., PhD

During May, Mental Health Awareness Month, APA will draw special attention to children's mental health. As this month's cover story (page 42) makes clear, addressing children's mental health involves psychological science and knowledge from across our field. This includes, but critically extends beyond, mental health treatment. As the world in which our children and grandchildren live becomes increasingly fast-paced and complicated, APA's strategic plan—adopted last year by our Council of Representatives—provides opportunities to increase our collective impact on the lives of children.

■ **We are prioritizing partnerships that can have a meaningful impact on children's well-being.** APA and the National Parent Teacher Association have worked together for years, and we're now exploring how we can share psychological science with even broader audiences of children, parents and teachers. From research on fostering a positive school climate to evidence-based tips for discussing tragedy with children, we are working together to find new ways to apply psychology to promote healthy development.



APA CEO
Dr. Arthur C. Evans Jr.

SCOTT SUCHMAN

■ **We are being more thoughtful in how we apply psychological science to societal issues that affect children.** Gun violence is a leading stressor among 15 to 21-year-olds, with nearly 75% of youth saying that school shootings cause them significant stress. Amid concerns that active shooter drills were traumatizing children, APA organized a task force of psychologists, school administrators, teachers and law enforcement to develop science-based recommendations that schools can implement to decrease youth exposure to traumatic events.

■ **We are speaking out faster and more loudly on important developmental issues for which psychology has unique expertise.** In February, the *Washington Post* revealed that unaccompanied migrant children in federal custody have been denied asylum and further detained as a result of U.S. Immigration and Customs Enforcement's use of confidential psychotherapy information. APA immediately decried this as harmful to children who need evidence-based trauma treatment and acted swiftly to ask the administration for policy change.

Through these efforts and more, we are elevating our alliances, applying our science and raising our voices—working together to improve the lives of all children and families during Mental Health Awareness Month and all year long. ■

The Hot List

CLIMATE CHANGE IS OUR TOP CONCERN

More than half of U.S. adults say climate change is the most important issue facing society today, according to a new APA poll, yet **4 in 10 haven't made any changes** in their behavior to reduce their contribution to climate change. And while 7 in 10 U.S. adults say they wish there were more that they could do to help combat climate change, 51% say they don't know where to start. Read the full report and watch a video about the data at **www.apa.org/news/press/releases/2020/02/climate-change.**



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APA has launched two webinar series that offer 1.5 continuing-education credits per episode. **Compact Clinical** features leading practitioners considering critical questions on practice, and **Book Nook** presents an in-depth look at new APA books. Find them at **https://apa.content.online/catalog/main.xhtml.**

THE PSYCHOLOGY EVENT OF THE YEAR

Registration begins April 15 for **APA 2020,** set for Aug. 6–9 in Washington, D.C. The annual convention is psychology's premier event for networking, gleaning new insights and more. Early registration fees are in effect until May 15. Visit **https://convention.apa.org.**





TRAVEL WITH APA TO COSTA RICA

APA's **International Learning Partner Program** is hosting an educational trip to Costa Rica, June 13–21. Applications are due April 3. Learn more at **https://on.apa.org/ILPP.**

MEET THE CANDIDATES FOR APA'S 2022 PRESIDENT

APA announced the five candidates for its 2022 president at the end of March, after *Monitor* press time. Read more about the candidates' priorities at **https://on.apa.org/Elections.**

THE BEST WAY TO TEACH YOUNG LEARNERS

APA has published a report listing the most essential psychological research for boosting teaching and learning in preschool children. Find the **Top 20 Principles From Psychology for Early Childhood Teaching and Learning** at **https://on.apa.org/EarlyChildhood.**



CLOCKWISE FROM TOP LEFT: EXPLORA_2005, CHRISTIAN EDELMANN, FAT CAMERA, VENI/GETTY IMAGES

SAVE THE DATE **APA's Technology, Mind & Society conference is Nov. 12–14 in Denver. Visit https://tms.apa.org.**

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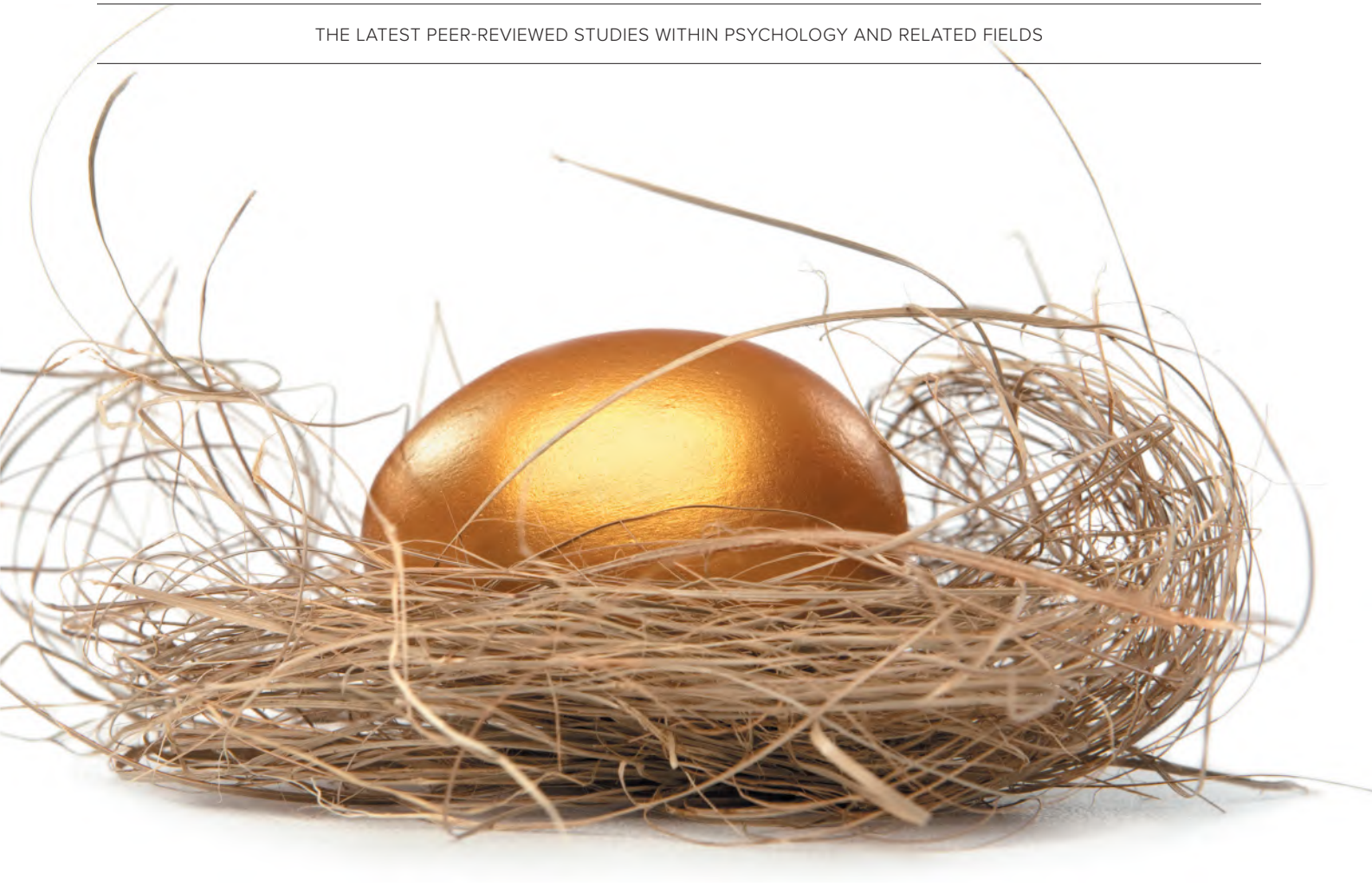
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COMPILED BY CHRIS PALMER

In Brief

THE LATEST PEER-REVIEWED STUDIES WITHIN PSYCHOLOGY AND RELATED FIELDS



TARP MAGNUS/GETTY IMAGES

Big Spenders, Super Savers

Personality characteristics can have a powerful influence on how quickly people spend their retirement savings, suggests a study in *Psychology and Aging*. Drawing from an ongoing survey of people age 50 and older in the United States, researchers paired psychological data collected in 2012 and 2014 from 3,678 participants with information about the amounts of money the participants withdrew from their retirement accounts.

The researchers found that participants with higher levels of conscientiousness, extroversion, positive affect and feelings of control over their finances spent retirement savings at a lower rate, while those with higher levels of openness to experience, agreeableness, neuroticism and negative affect spent at a higher rate. These results held after controlling for demographic characteristics and other factors such as levels of debt and desire to leave an inheritance. DOI: 10.1037/pag0000424

SCARCITY DRIVES DISCRIMINATION

When economic resources are limited, people are more likely to discriminate against those of other races, suggests research in the *Journal of Personality and Social Psychology*. Researchers asked 71 undergraduate students —none of whom identified as black or African American—to look at pictures of black and white male faces on a screen and award each face an amount of money based on perceptions of the recipients' "deservingness." Participants were given up to $10 to award to each face. However, one group was told that they could have been allocated up to $100, thus creating a sense of scarcity, while the other group was told that $10 was the maximum they could have been allocated. Participants in the scarcity group took longer to process black faces than white faces, as measured using electroencephalography, and awarded them less money, while participants in the other group took the same amount of time to process faces of either race and distributed money to them evenly. Also, fMRI scans revealed decreased activity in brain regions involved in valuation and choice behavior when participants in the scarcity group looked at black faces.

DOI: 10.1037/pspa0000168

FRAYED FAMILY TIES IMPACT HEALTH

Difficult relationships with family members may undermine one's health more than a troubled relationship with a significant other, according to a study in the *Journal of Family Psychology*. Researchers examined survey data, collected three times over two decades from 2,802 adults, that asked about strain and support among family and intimate partners. Participants' health was indicated by the total number of chronic conditions, such as headaches and stroke, that they reported experiencing in the 12 months prior to data collection. The researchers found that increased family relationship strain was associated with more chronic conditions and worse self-reported health 10 years later. There were no significant effects of intimate partner relationships on health outcomes.

DOI: 10.1037/fam0000600



When money feels scarce, people are more likely to discriminate against those of other races.

SENSORSPOT/GETTY IMAGES

LOSING YOURSELF IN THE ROLE

Just imagining how others feel can alter self-perception, suggests research in the *Journal of Experimental Psychology: General*. In one online study, researchers asked 185 adults to recall memories of personal events and rate how positively or negatively they felt during the events. Participants were then prompted to imagine how a friend (whom they had previously identified) would have felt during the same event and how an "average American" would have felt. Finally, when the participants again rated their own feelings, the ratings had shifted to become closer to their assessments of how their friend would have felt and, to a lesser extent, how they assessed an average American would have felt. An additional study with 310 participants indicated that these changes in self-perception can last 24 hours.

DOI: 10.1037/xge0000565

SPOTTING CHILDHOOD DISORDERS

Brain imaging may help identify children at risk for mood and attentional disorders, suggests a study in *JAMA Psychiatry*. Researchers performed resting-state fMRI scans on 94 7-year-olds who had no psychiatric diagnosis and followed them for four years. The researchers found that the children with weaker connectivity between the subgenual anterior cingulate cortex and dorsolateral prefrontal cortex were more likely to develop anxiety or depression symptoms by age 11. Those with stronger connectivity between the medial prefrontal cortex and dorsolateral prefrontal cortex were more likely to develop symptoms of attention-deficit hyperactivity disorder by age 11.

DOI: 10.1001/jamapsychiatry.2019.4208



Children with weaker brain connectivity at age 7 were more likely to develop anxiety or depression by age 11.

People who walk more slowly age more quickly, on average, a study finds.



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BRAINS OF SLOW WALKERS AGE QUICKER

The walking speed of 45-year-olds can be used as a marker of brain health and aging, according to a study in *JAMA Network Open*. Researchers followed 904 New Zealanders from birth. At age 3, the participants underwent psychological testing, including assessments of intelligence, language comprehension, motor skills, frustration tolerance and emotional control. Lower scores on all these assessments were associated with slower walking speed at age 45. Also, MRI exams performed at age 45 showed that slower walkers tended to have greater markers of aging such as lower total brain volume, lower mean cortical thickness, less brain surface area and higher incidence of small white matter lesions associated with small vessel disease of the brain. Finally, slower walkers looked older to a panel of eight volunteers who assessed each participant's "facial age" from a photograph.

DOI: 10.1001/jamanetworkopen.2019.13123

IMMUNE TO MARKETING?

Even though people readily acknowledge that advertising and political campaigns can exploit



Painkillers may be more effective when doctors believe that they will work.

psychological research to control behaviors, they don't think such marketing efforts influence their own choices, suggests research in *Consciousness and Cognition*. In one study, researchers asked 399 adults from four countries (Australia, Canada, the United Kingdom and the United States) to give examples from everyday experiences where psychological research has been used to manipulate people's behavior. About 45% cited advertising and 6% cited political campaigns. In two additional studies, 298 participants indicated that despite the use of psychological research in advertising and political contexts to manipulate their behavior, they were still able to maintain free will when it came to their purchasing or voting decisions. This contrasted with examples where psychological research was used in therapeutic situations, such as hypnotherapy or the use of placebo treatments, in which people felt less in control of their choices.

DOI: 10.1016/j.concog.2019.102860

EUREKA! ... OR NOT

Experiencing a profound sense of insight when deciphering a statement can make people more likely to believe that the statement is true, even when it isn't, according to a study in *Cognition*. Researchers presented 268 online participants with 26 statements containing anagrams (e.g., "*ithlium* is the lightest of all metals"). The participants had 20 seconds to solve the anagram (i.e., ithlium = lithium) and read the completed statement. They then judged how likely the statement was to be true on a 12-point scale and indicated whether they had experienced an "aha!" moment while working out the anagram. Half the statements were true (lithium is indeed the lightest metal) and half were false. In the 60% of trials in which participants successfully solved the anagram, they rated the statements as more likely true, on average, (even if they were false); this effect was enhanced in trials in which participants also reported an "aha!" moment.



Experiencing an "aha!" moment can make people believe that even false statements are true.

DOI: 10.1016/j.cognition.2019.104122

SOCIALLY TRANSMITTED PLACEBO

Medical treatments may be more effective when your physician seems to believe they will work, according to research in *Nature Human Behaviour*. Across three studies, researchers cast 194 U.S. undergraduates in the role of either doctor or patient. Next, the researchers led the "doctors" to believe that one of two identical petroleum jelly–based creams, called "Thermedol," worked better than the other in reducing pain. The researchers had the "doctors" apply the creams to the "patients," who reported feeling less pain in reaction to a heat exposure when treated with Thermedol. The patients also showed less arousal, as measured by skin conductance response, when receiving Thermedol. Analyses of videotapes indicated that the "doctors" may have conveyed their expectations about the

TOP: ADENE SANCHEZ/GETTY IMAGES; BOTTOM: MICRO STOCK HUB/GETTY IMAGES

effectiveness of the treatments through their facial expressions.
DOI: 10.1038/s41562-019-0749-5

WHICH COMPETITORS INTIMIDATE US MOST?

Even when competitors are evenly matched, players perform worse against opponents they know have been rising in rank, suggests research in the *Proceedings of the National Academy of Sciences*. Researchers analyzed the outcomes of 59,200 tennis matches and 2.75 million online chess games. They found that players' performance in both types of competition was negatively affected when they faced an opponent with positive momentum. In two more studies, the researchers placed 473 online participants in various competitive scenarios and measured how threatened they felt by different types of opponents. The researchers found that upwardly mobile opponents were more intimidating than opponents with the same rank who lacked momentum. In two additional online studies with 1,350 participants, researchers found that players who self-affirmed their skills before a potential matchup felt less threatened.
DOI: 10.1073/pnas.1908320116

SCHIZOPHRENIA BIOMARKER

A series of studies with mice and humans suggests that concentrations in hair follicles of an enzyme involved in producing hydrogen sulfide could serve as a biomarker for schizophrenia, finds research in *EMBO Molecular Medicine*. Researchers found higher levels of hydrogen sulfide—as well as of the enzyme Mpst, which plays a role in its production—in the brains of mice bred to show behavioral characteristics similar to those in schizophrenia, as compared with the brains of other mice. In another study, the researchers found higher levels of hydrogen sulfide and Mpst in the postmortem brains of 22 people with schizophrenia compared with the brains of 14 people without the condition. Finally, the researchers found that hair follicles from 149 people with schizophrenia showed greater expression of the gene that codes for Mpst as compared with hair follicles of 166 control participants. In addition to pointing to a potential early biomarker for schizophrenia, the research suggests new targets for medication development.
DOI: 10.15252/emmm.201910695



When tennis players and other competitors are on an upswing, their opponents feel more intimidated.

OSTILL/GETTY IMAGES

MORNING SICKNESS AND AUTISM

Mothers who experience a severe form of morning sickness known as hyperemesis gravidarum are 53% more likely to have a child diagnosed with autism spectrum disorder (ASD), according to a study in the *American Journal of Perinatology*. Researchers reviewed electronic health records of 469,789 pregnant women and their children born in Southern California between 1991 and 2014. Hyperemesis gravidarum was associated with increased risk of autism when the condition was diagnosed during the first and second trimesters of pregnancy, but not when it was diagnosed only in the third trimester. In addition, the association between hyperemesis gravidarum and ASD was stronger in girls than in boys and among whites and Hispanics than among African Americans and Pacific Islanders. Use of medications to treat hyperemesis gravidarum did not affect the risk of ASD.
DOI: 10.1055/s-0039-1696670

CBT SLOWS CELLULAR AGING

Cognitive-behavioral therapy (CBT) not only helps reduce anxiety but also seems to protect against accelerated cellular aging, finds a study in *Translational Psychiatry*. Researchers took blood samples from 46 patients with social anxiety disorder to assess the activity of two enzymes (telomerase and glutathione peroxidase) that protect telomeres, the small stretches of DNA that maintain the integrity of chromosomes. Telomere degradation is considered a marker of cellular aging and has been linked to psychiatric and other disorders. Following a nine-week online course of CBT, the participants provided another blood sample. The researchers found that after CBT, participants' anxiety symptoms were reduced and the activity of telomerase and glutathione peroxidase was increased, with the degree of symptom reduction correlated with the degree of increased enzyme activity.

DOI: 10.1038/s41398-019-0668-2



Cognitive-behavioral therapy may improve health on a cellular level by increasing the activity of enzymes that protects cells' telomeres.

CLOTHES MAKE THE MAN

People judge the competence of others within milliseconds, based partly on economic cues picked up from their clothing, according to research published in *Nature Human Behaviour*. Across six studies, researchers asked 399 online and in-person participants to view photos of 36 people—one in which the person was wearing "rich" clothes and one in which they were wearing "poor" clothes—then rate the competence of the people in the photos on a scale of 1 to 9. The same person when seen with "richer" clothes was judged significantly more competent than with "poorer" clothes. The findings held even when participants viewed the images for just 130 milliseconds or when they were instructed to ignore the clothing. Additional studies indicated the effect persisted even when participants were provided information about the photographed person's profession and income, and when participants were financially incentivized to ignore the peoples' clothes.



Smartly dressed people are perceived as more competent than those who wear shabbier clothes.

DOI: 10.1038/s41562-019-0782-4

ALCOHOL USE LINKED TO BRAIN VOLUME

Alcohol consumption has long been associated with reduced brain volume, but rather than being the result of heavy drinking, reduced brain volume may be a heritable risk factor for heavy alcohol use, suggests a study in *Biological Psychiatry*. Researchers examined neuroimaging data across three independent studies with 2,423 individuals spanning adolescence to middle age. They found that genetically conferred reductions in gray matter volume in the dorsolateral prefrontal cortex and insula—two brain regions that play roles in emotion, memory, reward and decision-making—were predictive of the age at which people start drinking and of alcohol use in young adulthood. The researchers also found no differences in gray matter volume in the brains of same-family siblings in which one sibling drank more heavily than the other—the brains of both looked like heavy drinkers.

DOI: 10.1016/j.biopsych.2019.08.029

WE DO LITTLE TO PREVENT DEMENTIA

Nearly half of all older adults fear developing dementia, but only 1 in 20 has discussed ways to reduce dementia risk with their doctors, finds a study in *JAMA Neurology*. Researchers asked 1,019 U.S. adults ages

TOP: KOYA79/GETTY IMAGES; BOTTOM: ANNEBAEK/GETTY IMAGES



RYAN J LANE/GETTY IMAGES

50 to 64 whether they were concerned about developing dementia, whether they have discussed dementia risk with their physicians and what strategies they use to maintain their memory. About 48% of respondents said they felt they were at least somewhat likely to develop dementia. Respondents reported using a handful of non-evidence-based strategies to maintain or improve memory, including ginkgo biloba (4%), fish oil or omega-3 supplements (31%), other vitamins and supplements (39%) and crossword puzzles (53%). Only 5%, though, sought guidance on preventing and treating dementia from their health-care providers.

DOI: 10.1001/jamaneurol.2019.3946

POTLUCK PARIAHS

People on specialized diets tend to feel more isolated and lonely than those who can eat everything, according to research in the *Journal of Personality and Social Psychology*. In two studies with 495 adults and 710 grade-school children in the United States, researchers found that food restrictions (reported by 28% of adults and 15% of children) predicted loneliness among both groups. Two additional online studies with 701 total participants found that worry over how they were perceived by others was a source of restricted eaters' loneliness. In another study with 83 undergraduate students, assigning a food restriction to normally unrestricted eaters increased reported feelings of loneliness.

Food restrictions may make people feel more lonely and isolated.

DOI: 10.1037/pspi0000223

ADHD HAMPERS FINANCIAL SUCCESS

Adults who had attention-deficit hyperactivity disorder (ADHD) as children will earn, on average, $1.27 million less over their lifetimes than adults without a history of the condition, suggests a study in the *Journal of Consulting and Clinical Psychology*. Researchers examined the financial outcomes of 364 participants in the United States who had childhood ADHD, as well as 240 demographically similar participants without the disorder, at age 25 and then again at age 30. At age



Identical twins with autism spectrum disorder can differ in the severity of their symptoms.

30, adults with a history of ADHD—including those who no longer met the criteria for an ADHD diagnosis—were worse off across almost all financial indicators, including income, savings, employment status and dependence on parents and other adults. Moreover, on several indicators, the differences between those with and without a history of ADHD were greater at age 30 than at age 25.

DOI: 10.1037/ccp0000461

TWINS CAN DIFFER IN AUTISM SEVERITY

Identical twins with autism spectrum disorder (ASD) who are raised together can show significant differences in symptom severity, according to research in *Behavior Genetics*. Researchers analyzed data from three studies with a total of 366 identical twin pairs (ages 4 to 15) with and without ASD. The children's behavioral traits related to autism (e.g., social interaction and repetitive behavior) were assessed by standard instruments involving parents' or clinicians' observations. The researchers reported a 96% likelihood that if one twin had ASD, the other had it, too. However, trait scores varied much more between twins diagnosed with ASD than between twins without ASD. The researchers suggest that ASD may be associated with greater vulnerability to influences from the environment that are not shared between siblings.

DOI: 10.1007/s10519-019-09987-2

A FOR EFFORT

Children with low confidence in their academic competence can boost their performance on math tests if they use self-affirmations centered on effort rather than ability, suggests a study in *Child Development*. Researchers asked 212 children ages 9 to 13 years in the Netherlands about their competence in school. A few days later, the children were given a standardized math test. Halfway through the test, the children were asked to engage in self-talk focused on effort ("I will do my very best") or ability ("I've always been good at math"), or no self-talk. Children whose self-talk focused on effort improved their performance on the second half of the test; no improvement was observed among children who engaged in self-talk focused on ability or those who performed no self-talk. The effort-based self-talk specifically benefited those children who rated themselves low in academic competence. ■

DOI: 10.1111/cdev.13347

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Datapoint

NEWS ON PSYCHOLOGISTS' EDUCATION AND EMPLOYMENT FROM APA'S CENTER FOR WORKFORCE STUDIES

PSYCHOLOGY KNOWLEDGE AT WORK

■ It's not only psychologists who use psychology at work. In a survey of U.S. workers and occupational experts across 967 occupations, respondents evaluated the importance of 33 knowledge areas (such as English language, mathematics and clerical knowledge) to their job performance. When these scores were averaged across occupations, psychology ranked 12th in importance when compared with all other knowledge areas.[1,2]

■ Psychology knowledge was defined as "knowledge of human behavior and performance; individual differences in ability, personality and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders." It was important in a variety of occupations, including, for example, among social workers (importance: 4.6 out of 5.0), counselors (4.0), postsecondary teachers (3.1), business intelligence analysts (2.4) and risk-management specialists (2.4).

Psychology Is Ranked 12th out of 33 Knowledge Areas



By Jessica Conroy, BA, Luona Lin, MPP, and Peggy Christidis, PhD
Want more information? See CWS's interactive data tools: www.apa.org/workforce/data-tools/index or contact cws@apa.org.

BILL WEBSTER

[1] This page includes information from the O*NET 24.1 database by the U.S. Department of Labor, Employment and Training Administration (USDOL/ETA). Used under the CC BY 4.0 license. O*NET® is a trademark of USDOL/ETA. USDOL/ETA has not approved or endorsed this report.
[2] Importance was scored on a scale of 1 (not important) to 5 (very important). Ratings were based on survey data collected from representatives in each occupation and input by occupational experts with years of experience with the occupation. Additional information on O*NET knowledge definitions and methodology can be found at www.onetcenter.org/database.html#overview.

WORKING TOGETHER AGAINST RACISM

Psychologists are bringing the breadth of their expertise to bear on understanding the causes and mitigating the effects of racism

BY ZARA GREENBAUM

When psychologist Milo Dodson, PhD, traveled to Wisconsin to direct hip-hop artist Common's Dreamers & Believers Summer Camp for youth in 2013, he was still scrambling to finish his dissertation. But after a few late nights of writing, Dodson realized his doctoral work at the University of Illinois at Urbana-Champaign—on race-related stress, the N-word and racial identity development—was highly relevant to his campers, black youth from Chicago. So he began weaving it into their nightly fireside chats.

Dodson led conversations among 30 or so boys about what it means to be black and how race-related barriers and values shape their experience—for instance, their interactions with law enforcement officers.

"It quickly became clear how critical it is to use research and how applicable research is when brought straight into the community," he says.

Historically, psychological research has been used both to fight and to perpetuate racism. In 1954, a "friend of the court" brief highlighting the damaging effects of segregation, including the seminal doll study by psychologists Kenneth B. Clark, PhD, and Mamie Phipps Clark, PhD, was a key piece of evidence in the *Brown v. Board of Education* case that ultimately led to the desegregation of public schools. Yet psychological research has also been exploited to promote racist ideologies, for instance, through efforts to tie race to intelligence (Neisser, U., et al., *American Psychologist*, Vol. 51, No. 2, 1996).

"When it comes to racism, psychologists have moved the needle both in very positive ways and unfortunately also in some harmful ways," says Shawn Jones, PhD, an assistant professor of counseling psychology at Virginia Commonwealth University who studies racism-related stress. "We as a field now have a responsibility to be on the right side more often than not."

Today, psychologists are conducting research on the causes and effects of racism, including disparities in mental health care and the effects of racial microaggressions; designing interventions to mitigate those effects; adapting clinical practice and pedagogy to reflect the diversity of patient and student populations; and working to shift national policies to address racism and racial disparities. They are also working to "decolonize" psychology by incorporating more inclusive practices into the discipline, such as indigenous approaches to healing and wellness.

"Racism can be a nefarious stressor that impacts us individually, interpersonally, institutionally and structurally," Jones says, "which is why addressing it requires psychologists to work at a variety of levels."

The work involves partnering with experts from other disciplines, including public health professionals, sociologists and psychiatrists, all of whom bring specialized knowledge to the table.

"This isn't something that any one person can solve," says Dodson, now a senior staff psychologist at the University of California, Irvine (UCI) counseling center. "Fighting racism is going to be an ongoing struggle and battle. As we continue to resist hate, we also need to find ways to support each other and to be increasingly collaborative."

DEFINING AND DOCUMENTING RACISM

In recent years, psychologists have helped redefine the way we understand racism as a society. Much of the public used to think that only discriminatory laws or overt acts of interpersonal discrimination, such as the use of racial slurs, counted as racism. But today, many people recognize that systemic disadvantage and more subtle microaggressions are also a

ABOUT THIS SERIES

In this *Monitor* series, we explore how psychologists address some of society's greatest challenges through the work they do in their distinct—yet interdependent—roles as researchers, practitioners, applied experts, educators, advocates and more.

Up next: Autism

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key part of the racial-minority experience in America and cause great harm. Psychologists have helped to document those consequences. For example, a meta-analysis on micro-aggressions—subtle yet hostile racial slights—found they were linked to negative outcomes such as stress and anxiety (Lui, P.P., & Quezada, L., *Psychological Bulletin*, Vol. 145, No. 1, 2019).

Systemic disadvantages, meanwhile, manifest themselves in many ways, including disparities in employment, housing, health care—and mental health care.

Psychologists and other researchers at The Ohio State University's Kirwan Institute for the Study of Race and Ethnicity analyze both explicit bias and implicit bias—unconscious stereotypes that can contribute to systemic discrimination—and release yearly reports that provide a global view of disparities across criminal justice, education, health and housing. Researchers there have demonstrated that African American children are more likely to be disciplined than white children for the same action, that mortgage applications from whites are more likely to be accepted than those from African Americans with the same credit scores, and that Asian Americans may receive differential treatment from mental health-care providers because of the assumption that they are a high-achieving group (*State of the Science: Implicit Bias Review,* 5th ed., Kirwan Institute, 2017).

New large-scale studies that

disaggregate results by race and ethnicity are also revealing low mental health service utilization among African Americans, Latinx, Asian Americans, Native Hawaiians and Pacific Islanders (National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration [SAMHSA], 2018).

And the ongoing lack of racially inclusive research—as evidenced by, for instance, the dearth of studies with Latinx participants in clinical and forensic psychology and the lower enrollments of racial- and ethnic-minority participants in many clinical trials and other health research—means that persistent disparities in outcomes continue to be ignored.

PERNICIOUS EFFECTS, EFFECTIVE INTERVENTIONS

As the data stack up on these racial inequities that continue to define American society, some psychologists are studying how this climate affects minority youth and what might be done to cope with and mitigate that reality.

Jones studies racism-related stress, including how vicarious experiences of racism—such as discrimination against a loved one or a nationally publicized police shooting—can have a deleterious effect on the psychological well-being of black youth. For instance, he and his colleagues staged a vicarious discrimination experience in his lab in which black research participants witnessed an experimenter favoring white individuals, and then documented participants' increased distress, especially among those who believed that whites hold negative views of blacks (Hoggard, L.S., et al., *Journal of Black Psychology*, Vol. 43, No. 4, 2017).

Jones is also exploring strategies parents and caregivers can use to help black youth learn to navigate their racialized world—by developing a positive racial identity, but also by recognizing the inevitable barriers and biases they will face because of their race. His work builds on foundational research by psychiatrists James Comer, MD, and Alvin Poussaint, MD, by integrating family systems and therapeutic perspectives.

"How do these conversations unfold, what do the dynamics between parents and children look like and how might they be improved?" Jones asks. To answer these questions, he's conducting a series of mixed-methods studies of how parents discuss race with children and how those conversations differ based on age and gender (*Journal of Child and Family Studies*, Vol. 28, No. 1, 2019).

The body of research that Jones helped build has informed a family-based intervention known as EMBRace, or Engaging, Managing, and Bonding through Race, which was developed by psychologist Riana Anderson, PhD, assistant professor at the University of Michigan's School of Public Health. In five sessions, EMBRace provides guidance and structure for black parents and children to explore racial socialization, including by cultivating cultural pride and learning stress management skills (Anderson, R.E., et al., *Family Process*, Vol. 58, No. 1, 2019).

"Shawn and I are collaborating in the research world, but we're also seeing that these findings aren't always trickling down to the folks who need it," Anderson says. "So, we're also thinking creatively about how to reach people."

In that same vein, Anderson and Jones launched a YouTube series, Our Mental Health Minute, to share psychological insights about racial socialization, stereotypes, substance use and other topics with a broader audience.

Other psychologists are also connecting with racial-minority communities in innovative ways. Dodson led discussions about anxiety, depression, emotional vulnerability and race-related stress at Common's youth camp for five consecutive summers. Now, he speaks regularly at athlete and activist Colin Kaepernick's Know Your Rights Camp, where he engages kids and teens of color in discussions about mental health.

"It's really insidious how white supremacy has caused kids of color to internalize thoughts like, 'I don't deserve to take care of myself,'" Dodson says. "Part of my work is teaching them that we all have the right to be healthy, and that also means taking care of our mental health."

Dodson also delivers traditional clinical services at UCI, including a weekly group counseling session aimed at destigmatizing mental health

INTERDEPENDENT ROLES

Psychologists apply their expertise on racism from all areas of the discipline, including:

Basic science
Psychologists conduct research on the causes and effects of racism, including disparities in mental health care.

Clinical research
Clinician-scientists design interventions to mitigate the effects of racism.

Clinical psychology
Clinicians treat patients in culturally competent practices to address the consequences of racism.

Advocacy and policy
Policy influencers advocate for local and national policies that will address racism and racial disparities.



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care among black men, and serves as the mental health liaison to the school's athletics department and esports program.

His racially conscious approach points to a gap that persists in clinical settings: a dearth of services that are culturally relevant for racial- and ethnic-minority patients, despite evidence that culturally adapted psychological interventions are more effective than unadapted versions of the same interventions (Hall, G.C.N., et al., *Behavior Therapy*, Vol. 47, No. 6, 2016). A recent review of culturally appropriate mental and physical health-care services found a shortage of interventions and significant gaps in the literature evaluating them (Butler, M., et al., *Improving Cultural Competence to Reduce Health Disparities*, Agency for Healthcare Research and Quality, 2016).

"The general consensus is that there is a continuing lack of culturally relevant services," says Stanley Sue, PhD, former director of the Center for Excellence in Diversity at Palo Alto University and co-founder of the Asian American Psychological Association. But the situation is improving, he says, citing an increased focus on disparities

Psychologists' strategies help children of color develop a positive racial identity while still recognizing the inevitable barriers and biases they will face.

research and the *APA Guidelines on Race and Ethnicity in Psychology,* released in 2019.

Psychologist Iva GreyWolf, PhD, has found a creative way to address the shortage of services tailored for racial- and ethnic-minority groups. As an indigenous behavioral health consultant, GreyWolf helps bridge the gap between American Indian and Alaska Native people receiving treatment for trauma and the clinical psychologists hired to provide it, who are typically unfamiliar with indigenous cultures. She travels with providers to Native villages, mentors providers serving these

communities and leads training efforts on the history of the indigenous peoples and cultural practices. For example, nonverbal communication and the participation of family members are seen as key parts of the therapeutic experience in many indigenous cultures.

"Unfortunately, it's common for outside psychologists completely new to the culture to secure short-lived contract positions serving indigenous communities," GreyWolf says, adding that these temporary appointments can be dangerous and disorienting for patients. "It's essential to understand the different values and ways of communicating in order to provide true support."

ACTIVISM AND ADVOCACY

Other psychologists are helping to address racism through their work as administrators and activists. At Lincoln University in Pennsylvania, one of the country's first historically black colleges and universities, psychologist and university president Brenda Allen, PhD, relies on her research background in race and educational outcomes to inform her racial equity work. She created the school's Office of Institutional Equity, which crafts policies and programs to promote racial equity. For example, the campus police force, which is primarily white, completed its first training course on implicit bias during the summer of 2019.

At the University of California, Berkeley, clinical psychologist Élida Bautista, PhD, directs inclusion and diversity efforts for the Haas School of Business. Her role involves training students, faculty, staff and senior leadership on the value of diversity and best practices for inclusion, revising admission and hiring policies to improve racial equity, and consulting on diversity issues when they arise.

"The demographics here have looked the same for a long time, but they're not reflective of the state we live in," Bautista says. "I've started creating opportunities to question the status quo."

Across academia, psychologists have also created crucial opportunities to bolster research efforts by and about racial-minority groups. To improve opportunities for Latina doctoral-level researchers, Silvia Mazzula, PhD, associate professor of psychology at the City University of New York's John Jay College of Criminal Justice, founded the multidisciplinary Latina Researchers Network (LRN) in 2012. With nearly 3,000 members across psychology, public health, political science and other disciplines, the LRN provides mentorship and collaboration opportunities for a demographic underrepresented in academia.

"Often psychologists of color enter spaces and they're the only one in their department or institution," Mazzula says. "That's a very difficult place to be, which is why networks like this are so important to provide additional support and mentorship."

While collaboration among academics is essential, some psychologists have turned their gaze outward to focus on addressing racial issues in the public sphere. Dodson co-hosts a podcast, Mental Health Is R.E.A.L. (Reflecting Empathy and Love), with Los Angeles radio personality Yesi Ortiz. The program, which reaches tens of thousands of listeners, most of whom are black or Latinx, seeks to normalize mental health, for instance, by featuring celebrities like Common and artist-activist Gina Belafonte discussing their experiences in therapy.

"My primary goal is to put research directly in the hands and hearts of people of color," Dodson says. "Podcasts, radio and TV are avenues that allow me to connect directly with the people."

Meanwhile, applying the insights about racism gained from ongoing research and practice, some psychologists are also working to shift policies at the highest levels of government to improve racial equity in the United States.

At SAMHSA, for example, licensed clinical-community psychologist Larke Huang, PhD, helped launch in 2012 and now directs the Office of Behavioral Health Equity, where she works at the interface of research, practice and policy.

She has focused on reducing racial disparities in substance use and mental health care by requiring SAMHSA grantees to demonstrate—rather than merely claim—that they are serving racial-minority groups. A new policy Huang helped institute requires grant recipients to submit a disparity impact statement showing their efforts to serve vulnerable populations,

FURTHER READING

APA Guidelines on Race and Ethnicity in Psychology
2019

The Racial Healing Handbook
Singh, A.A.
New Harbinger Publications
2019

Toward a Racially Just Workplace
Roberts, L.M., & Mayo, A.J.
Harvard Business Review
2019



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Microagressions—subtle yet hostile racial slights—are linked to stress, anxiety and other negative outcomes, research has shown.

including racial minorities. For example, an analysis found that a jail diversion program was disproportionately diverting white people from jail because of mental health problems and not equitably diverting people of color with similar problems. In such cases, the policy requires grantees to show how they will reduce disparities using practices supported in the psychological, organizational management and quality improvement literatures. For instance, the jail diversion program might serve more people of color by minimizing the role of implicit bias in decisions about who should be diverted to a mental health facility.

Huang also helped launch the National Network to Eliminate Disparities in Behavioral Health (NNED), a network of nearly 2,000 community organizations that primarily serve Latinx, African American, Asian American and Native American populations. NNED supports such groups by providing training and technical assistance to both fledgling and established organizations working to develop and test behavioral health interventions for minority populations. Huang says many of these organizations develop innovative and promising programs but would benefit from partnerships with research psychologists trained to conduct formal evaluations, who could help them build stronger evidence bases to support their expansion.

"We also need to talk more about how we pay for these initiatives," Huang says. "Oftentimes, health disparities and inequities are left out of the financing formula."

Psychologists are working in the legislative branch as well. Judy Chu, PhD, a psychologist and U.S. representative for California's 27th Congressional District, has fought several of the Trump administration's racially problematic policies, including the effort to bar citizens of several Muslim-majority countries from entering the United States. Her National Origin–Based Antidiscrimination for Nonimmigrants (NO BAN) Act, which would reverse the travel and asylum ban and eliminate the extreme vetting requirements authorized by a recent executive order on refugees, now has more than 200 co-sponsors in the House. Chu also helped apply pressure to shut down a temporary shelter for unaccompanied immigrant children in Tornillo, Texas, and has passed bills that set humanitarian standards for such facilities.

"It's so important to have psychologists in Congress, because the policies of this administration have so much impact on people's mental health and on their experiences of trauma," Chu says. "We have a responsibility to stop the permanent harm these policies can cause."

Chu is also spearheading the Increasing Access to Mental Health in Schools Act—which would provide student loan forgiveness to mental health professionals who deliver services in low-income schools—as a way to improve care for racial- and ethnic-minority communities.

Ultimately, some psychologists say that speaking up about racial inequities is a professional obligation that's essential for moving the field forward.

"It's incumbent upon psychologists to have conversations with one another and the public about race, and not just rely on activists to do that work for us," Dodson says. "We ourselves need to be activists." ■

LIBRARIES AS MENTAL HEALTH HUBS

Across the United States, libraries are striving to offer visitors mental health supports

BY HEATHER STRINGER



As many librarians will tell you, helping people find the information they need—and especially information they didn't even *know* they needed—is often the most satisfying part of their job. A less rewarding aspect can be interacting with the visitors a librarian may not be trained to help, such as people with serious mental health problems. In some cases, a librarian may need to escort a patron off the premises—an outcome no one wants that can leave the librarian feeling guilty, frustrated and burned out over time.

In an effort to address this long-standing problem, libraries are increasingly working to educate library staff and the public about ways to support people with mental health and substance use conditions.

"Libraries are now serving as community centers, as gathering places for people across neighborhoods, and not just a place for books," says Kathryn Gardella, project manager for the Mental Health Initiative in California, a public library partnership supported by the Institute of Museum and Library Services. "Because of that shift, staff need to be better equipped to provide excellent service to all patrons."

To meet this need, mental health professionals have started sharing their knowledge in the library setting through lectures for the public, training programs for library staff and sometimes by working directly with patrons who have mental health conditions. The Public Library Association, for example, formed the Social Worker Task Force to identify best practices for addressing the social service needs of library patrons.

"Momentum has definitely picked up in the last five years to find ways to help libraries support the increasing volume of patrons who are experiencing homelessness, substance use conditions and mental illness," says the association's president-elect, Michelle Jeske.

While progress has been made, libraries still need more mental health support—a ripe opportunity for psychologists' expertise.

TRAINING AND OUTREACH

San Diego public librarian Joseph Miesner is among those who've been trained in mental health first aid, thanks to the California Mental Health Initiative. Through the course, he learned about the prevalence and symptoms of mental illness and about de-escalation strategies. "It helped me understand that disruptive behavior is not a personal affront," says Miesner, who has worked for the library system for 28 years. "My ability to assist people has improved immensely because I have a better understanding of mental illness, and I'm more empathetic."

He tapped that training when he interacted with a distraught woman who was yelling in the library. Rather than asking her to leave, he sat down with her and said, "I can see that you are very upset. Is there anything I can help you with?" The woman cried as she shared that she had been robbed, that she did not trust the police and that she did not want medical assistance. "I just spent time listening to her, and eventually she gathered her belongings and walked away quietly," he says.

Miesner and three other librarians also learned how to teach mental health first aid, and they have trained nearly 250 San Diego Public Library staff in the last three years.

While librarians like Miesner appreciate feeling more equipped to interact with patrons, library systems are also starting to work



ROBERT ADAM MAYER

directly with personnel who have mental health training.

In New York City, social psychologist Wendy Viola, PhD, is evaluating the city's new Spaces to Thrive program, a partnership between the New York Public Library and the mayor's Office of ThriveNYC that aims to increase public access to mental health information and support. The program, which began in December in 13 branch libraries, includes mental health workshops for the public about suicide prevention, social-emotional learning, social stigma and the relationship between social media and mental health.

The libraries have also started offering training in how to use naloxone (Narcan) for opioid overdose reversal, and participants can take home Narcan kits. Each site also dedicates several shelves to autobiographical, nonfiction and fiction books about mental health. Viola, who is the director of research at ThriveNYC, will be collecting data about the number of attendees at workshops and resources distributed, including brochures about the city's crisis helpline and the Narcan kits, to capture how people are using the library to understand mental health issues.

Dr. Wendy Viola is evaluating New York City's new Spaces to Thrive program, which aims to increase access to mental health information in public libraries.

Social workers are also playing a critical role. In 2009, the San Francisco Public Library became the first public library system in the nation to hire a social worker. Now, dozens of libraries across the nation have social workers on staff.

"We build relationships with people and become a familiar face, so when patrons are ready for help, we can connect them with organizations that provide counseling, medical care, housing and other services," says Leah Esguerra, LMFT, who works in the San Francisco Public Library system. Her team frequently encounters people who are sleeping, which is not allowed in the library system, and they ask these patrons if they are OK. "This question can open up a conversation," she says.

One regular library patron who Esguerra assessed was a veteran who had worked as a nurse. She suffered from post-traumatic stress disorder and a degenerative health condition and had been experiencing homelessness for years. Esguerra met with the woman weekly to provide brief therapy, and after making a few calls, she was able to secure housing for the woman through a local organization. To date, Esguerra has helped find stable housing for more than 200 library patrons.

BEYOND LARGE CITIES

While innovative mental health programs in large, metropolitan libraries are attracting attention, a similar momentum is building in university and suburban library systems. Dawn Behrend, who worked as a full-time



master's-level therapist before becoming a librarian, started offering mental health training to her co-workers soon after she began working at the library at Lenoir-Rhyne University in Hickory, North Carolina. "When librarians on staff and at conferences heard about my psychological background, they wanted to know how to handle difficult patrons and practice self-care because their jobs had become so stressful," she says.

Although the university librarians were not typically seeing patrons experiencing homelessness, they were unsure about how to deal with disruptive behaviors among some students who have autism spectrum disorder (ASD). So Behrend started teaching an online professional development course to educate librarians across the country on how ASD presents in children, adolescents and adults, and how to communicate with these individuals. Participants learn that pacing and making loud noises can be methods of self-regulation and that overly bright lighting can also be difficult for these patrons to manage.

"Librarians should review their existing facilities and make adjustments to suit the needs of patrons who are neurodiverse," she says.

Because libraries serve as community centers and gathering places, they are an ideal space for mental health outreach.

Behaviors related to anxiety, such as frustration and anger, are also common in a university library—especially when finals are approaching, Behrend says. She teaches staff how to express empathy and avoid power struggles with students by offering alternative materials, services or spaces to help them deal with their frustration.

At Avon Free Public Library in Avon, Connecticut, where 40% of the city's population is age 50 or older, librarian Tina Panik decided to partner with the senior center to offer more education about mental health. Through funding from the National Network of Libraries and Medicine, the library offered a series of 16 programs on such topics as memory loss, depression and grief. The most popular session focused on how to deal with hoarding behaviors, and was presented by psychologist David Tolin, PhD, director of the Anxiety Disorders Center in Hartford, Connecticut. "Libraries are a great forum for the sharing of information," Tolin says.

Nearly 400 people attended the sessions, with many participants talking openly about mental health issues. For Panik, the series confirmed the need in the community to create safe spaces to discuss struggles that can often remain hidden.

"We are trying to erase the stigma surrounding mental health," Panik says. "Libraries and senior centers are trusted by the public, and we are showing that we are not afraid to talk about these issues." ■

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OPPORTUNITIES FOR PSYCHOLOGISTS

HOW YOU CAN HELP

- **Offer to give a talk** or facilitate a group at a local library on topics relevant to the community, such as suicide prevention, teen mental health issues or the effects of trauma.
- **Volunteer to train staff** about how to interact with patrons with mental illness.
- **Create a mental health drop-in service** where patrons can receive brief therapy.
- **Create a directory** of community mental health resources for librarians to share with patrons.
- **Provide input** about the library's mental health collection to ensure the resources are accurate, current and cover a variety of topics.

The American Psychological Foundation (APF) extends its congratulations to the first recipients of the

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Temple University



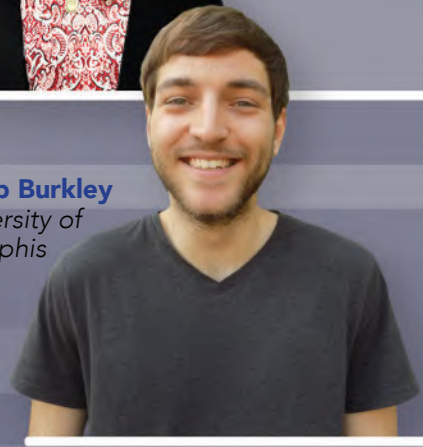
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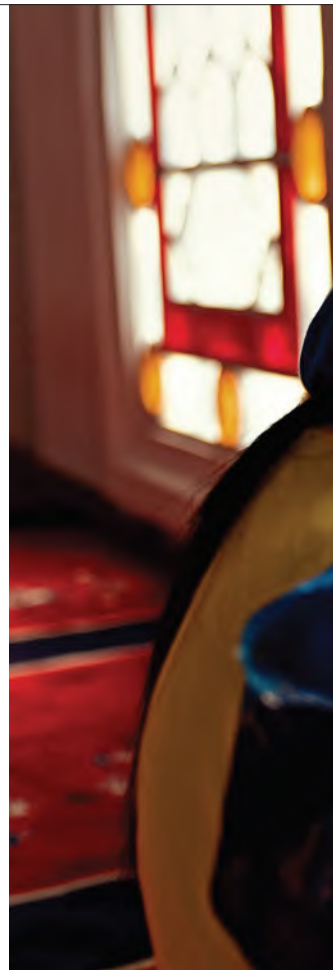
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REACHING OUT TO THE FAITHFUL

Psychologists are joining forces with religious communities to improve mental health and reduce the stigma of seeking treatment

BY KIRSTEN WEIR



Religious leaders have always provided counsel to their constituents. But most aren't trained to handle mental health disorders. Increasingly, faith-based institutions such as churches, synagogues and mosques are partnering with psychologists to improve the mental health of their congregants.

"There's more movement happening in this area in the last four or five years than I've seen in the last 20," says Shannon Royce, director of the Center for Faith and Opportunity Initiatives (also known as the Partnership Center) at the U.S. Department of Health and Human Services.

Beginning in 2018, the Partnership Center launched an initiative to connect faith communities with mental health practitioners to address mental illness. In a series of meetings, some in cooperation with the Substance Abuse and Mental Health Services Administration, they've met with scores of faith leaders, mental health professionals, people with lived experience, caregivers and people in government to discuss how faith communities can better support and care for those with mental illness, as well as how to strengthen spiritual and religious competencies for mental health professionals.

Now, the Partnership Center is using the insights from those conversations to guide their next steps as they coordinate efforts to bring evidence-based mental health treatment to faith-based organizations across the religious spectrum. One goal, Royce says, is to provide training resources to faith leaders so that they can distinguish between "everyday" difficulties they can help with and more serious matters that should be referred to a mental health professional.

Nearly 1 in 4 religious congregations (23%) now offer some type of mental health programming (Wong, E.C., *Psychiatric Services,* Vol. 69, No. 2, 2018). Some offer on-site access to mental health professionals, while many others have partnered with mental health professionals to create referral pathways for those who need care. When mental health professionals and faith leaders team up to address mental health, "we come closer to serving the whole person," says Timothy Sisemore, PhD, a professor of psychology at California Baptist University and past president of APA's Div. 36 (Society for the Psychology of Religion and Spirituality). "When we serve those whose faith is a vital aspect of their identity, we give them scientific as well as spiritual resources to cope."

When mental health professionals and faith leaders team up to address mental health, "we come closer to serving the whole person."

TIMOTHY SISEMORE, PhD, CALIFORNIA BAPTIST UNIVERSITY

INDIVIDUAL CONNECTIONS

Beyond formal partnerships, psychologists are making informal efforts to connect with faith leaders and their congregants to raise awareness of mental illness and reduce the stigma of asking for help. One such effort is being led by Earlise Ward, PhD, a counseling psychologist and associate professor and faculty director at the Morgridge Center for Public Service at the University of Wisconsin–Madison. Her work includes collaborating with church leaders to address mental



ZEYNEP BOGOCLU/GETTY IMAGES

Psychologists are studying ways to integrate faith perspectives into evidence-based treatments.

health disparities in African American communities. She's also working with the pastor of a local Baptist church to develop and pilot test a faith-based group intervention for depression to be co-delivered by mental health clinicians and clergy.

"Because of the stigma of mental illness, I've seen that many African Americans are more comfortable talking to their pastors about their mental health issues. They're seeking help, but not professional help," Ward says. Such partnerships can help reach people who might not otherwise seek out services. A 2003 study found that people were more likely to consult clergy for mental health treatment than to seek services from physicians or mental health professionals (Wang, P.S., *Health Services Research,* Vol. 38, No. 2, 2003). Ward and her colleagues also found that older African American women were more likely to seek guidance from their pastors when dealing with depression (*Journal of Psychiatric and Mental Health Nursing,* Vol. 21, No. 1, 2014).

Muslim faith leaders are also working to address mental health issues in their communities. Among them is Lamise Shawahin, PhD, a counseling psychologist and assistant professor of psychology at Governors State University in Illinois who is active with the Institute for Muslim Mental Health, a nonprofit organization that publishes the peer-reviewed *Journal of Muslim Mental Health* and puts on an annual conference connecting faith leaders and clinicians. It started as a regional event in Michigan in 2009, but thanks to growing popularity and interest, it was expanded in 2017 to a national event. The organization also provides resources such as Mental Health First Aid trainings for Muslim faith leaders. "Faith leaders know the limits of their expertise and training, and they feel empowered when they learn this information," she says.

Psychologists at the crossroads of mental health and religion are also conducting research on how to integrate faith perspectives into evidence-based treatments and help other clinicians learn how to work within religious communities, says Steven Pirutinsky, PhD, a clinical psychologist and assistant professor at the Touro College Graduate School of Social Work in New York City who works with Orthodox Jewish clergy to educate and consult on mental health issues, receive referrals and collaborate on research.

Shawahin and Pirutinsky are both members of the faith communities in which they work but say such membership is not essential. "You can make an impact whether you come from that faith tradition or not," Shawahin says.

In a study Pirutinsky is preparing for publication, he compared psychotherapy outcomes among patients and psychotherapists who were or

were not members of the Orthodox Jewish community. Preliminary findings show that religious patients had similar outcomes whether their psychotherapists were religious or not. The same was true for nonreligious patients.

"Like [in] any cross-cultural work, you have to bring respect," he says. "As long as you are respectful and curious and engaged, these collaborations can be very successful."

Kimberly Langrehr, PhD, a counseling psychologist and associate professor in the School of Education at the University of Missouri–Kansas City, wasn't part of a faith community, but a student asked her to speak about mental health at a health fair at the student's church. Since that presentation, Langrehr and her students have frequently partnered with the church to raise awareness of mental health issues. Those presentations led congregants to speak more openly about their mental health problems, and a number later came to the clinic where Langrehr and her students provide services. "This partnership gives students who plan to work in private practice a better understanding of how to serve underserved and diverse members of the community, and how to make those connections work," she says.

Historically, there has sometimes been mistrust between faith leaders and mental health professionals, says Royce. But she believes those walls are crumbling as people on both sides realize the role that each can play in promoting mental well-being. "For people of faith, their religious perspective often gives them an inherent sense of hope," she says. "If psychologists recognize the evidence that engaging their clients' faith perspective to motivate and encourage them means their treatment is more successful, they'll better serve their patients' needs." ■

RESOURCES

APA Div. 36 Society for the Psychology of Religion and Spirituality
www.apadivisions.org/division-36

The Center for Faith and Opportunity Initiatives
www.hhs.gov/about/agencies/iea/partnerships

Partnering With Black Churches to Increase Access to Care
Hankerson, S.H., et al. *Psychiatric Services,* 2018

The Role of Religion and Spirituality in Mental Health
Weber, S.R., & Pargament, K.I. *Current Opinion in Psychiatry,* 2014



5 QUESTIONS FOR DAVID SABSEVITZ

The clinical neuropsychologist designed a testing platform to track critical brain functions during brain surgery

BY KIRSTEN WEIR

At the Mayo Clinic in Jacksonville, Florida, surgeons opened a patient's skull, preparing to remove a tumor located in a high-risk area of his brain. Then, they woke the patient up. The neurosurgeon used a probe to stimulate the brain tissue, mimicking what would happen if that piece of tissue was sliced through or surgically removed. Meanwhile, clinical neuropsychologist David Sabsevitz, PhD, ABPP, tested the patient's cognitive functions. Asked to name a flesh-eating fish, the patient responded "pirannel" and "pirannus" but was unable to remember the word "piranha." Asked to repeat the nonsense word "sakanting," he could only reply with "sakanking" and "sakankus."

Though subtle, those changes indicated that the probe was encroaching on important language areas of the brain. Sabsevitz's tests helped the surgeon avoid those critical areas and find a safe corridor through which to access and remove the tumor—without causing a significant language deficit.

Such precision is possible because of a device called the NeuroMapper, a tablet-based testing platform that helps neuropsychologists and other clinicians map and monitor critical brain functions during surgery to treat brain tumors and epilepsy. Sabsevitz developed the system in 2016 while at the Medical College of Wisconsin, in a joint effort with computer science students at the University of Wisconsin–Milwaukee. Now a senior associate consultant at the Mayo Clinic in Jacksonville, he has used the platform with more than 200 surgical patients and counting and continues to fine-tune it. The *Monitor* spoke with Sabsevitz about the ways that the NeuroMapper is helping patients and improving our understanding of the brain.

Why do you map brains during surgery?

When operating on patients with brain tumors or epilepsy, surgeons may be working close to important areas such as those for language, sensory or motor functions. Before patients even enter the operating room (OR), the surgical team does structural and functional brain imaging to map the brain anatomy and the connections between brain areas. We then take those data, as well as the data I get from evaluating patients with traditional paper and pencil tests, to develop a game plan before we go into the OR. Then we wake the patient up for part of the surgery so we can map important functions and avoid those areas. While there are similarities in how brains are organized, it's remarkable how much variability there is between individuals. Add in a disease like a brain tumor or epilepsy, and you can have even more differences in brain organization. If we did these surgeries while patients were asleep, we'd be shooting in the dark.



RYAN KETTERMAN

How does NeuroMapper improve on the process?

Practices for brain mapping are incredibly variable across hospitals. Many sites will talk to the patient casually, looking for gross changes in conversation skills. Many show patients pictures and ask them to name the objects as a way of testing language ability. But very few sites use multidimensional mapping, testing a variety of functions using conceptually sophisticated measures. My colleagues and I wanted to increase the sensitivity of these tests to identify any changes in functioning as early as possible. With the NeuroMapper, the patient

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views a tablet mounted on a bar attached to the operating room bed. I have a second tablet that faces me, and I can select what tests I want the patient to see, and track the results. It's obvious if a patient can no longer name a picture that they were able to name before surgery. But with NeuroMapper, we can pick up on subtle changes, such as changes in reaction time. Maybe they were able to name a rhinoceros in three seconds, but now it takes them six seconds. That tells us the surgeon might be getting too close to language areas, and we should proceed with more caution. In the past, we couldn't measure those subtle changes very well.

What impact is it having on patients?

We're operating on patients that we might not have operated on before, such as patients with tumors close to brain regions critical for language or other cognitive functions. Without the proper methods to map and monitor them, such surgeries were often too risky. Neurosurgeons are also able to be more aggressive in removing tumors, because they're getting constant feedback about the impact of surgery as the surgery is progressing. They can keep going as long as they can see the patients are doing well.

At the same time, it's helping us learn more about the brain. We're developing new types of neuropsychological tests that allow us to map parts of the brain we weren't mapping in the past. I think it will lead to better surgical outcomes, but I also see this as a tool to facilitate our understanding of brain functioning.

What kinds of things are you finding?

We're learning more about the nondominant hemisphere, for example. That's the nonlanguage hemisphere, and for most people it's the right side of the brain. In the past, surgeons thought operating on the nondominant side wasn't as risky, so most of these surgeries were done while patients were asleep. But there are data suggesting cognitive risk in these cases. NeuroMapper gives us novel ways to try to map these areas. Also, for example, brain regions involved in attention are distributed throughout the right hemisphere. If you damage parts of that network, you can get what's known as neglect. You can see what's in front of you, but your brain doesn't pay attention to what's happening on the left side. You wouldn't see things on your left side, and you'd bump into them. If you were driving, you might veer to the left. We've developed a number of measures that allow us to map and monitor these attentional networks during surgery. We've been able to pick up early signs of neglect to spare patients more significant neglect after the operation.

What are your plans for NeuroMapper going forward?

It's now being used in about 20 academic medical centers across the United States, including here at the Mayo Clinic. We don't charge for it, but there is a selection process we use to decide who to make it available to. That's because one of our goals is to create a network for collaborative research with academic institutions across the country. I look at this as an opportunity to improve standardization and research. If we have a tool that's standardized, we can do research across institutions and collect data much more efficiently than we've been able to do.

NeuroMapper has been through several iterations since we started using it in 2016. We're constantly developing new tasks to help us measure areas of the brain we don't understand very well. We're also collecting outcome data, following patients before and after surgery to see what effect this is having. We learn new things every day. The brain is fascinating, and this is a really exciting space to work in. But getting a patient through a really difficult surgery and seeing them function well afterward—that's what this is all about. ■

WHAT SWAYS A DEATH PENALTY DECISION?

Psychology is exploring which mitigating factors lead judges and jurors to decide whether to hand down life imprisonment versus a death sentence

BY JONATHAN P. VALLANO, PhD, UNIVERSITY OF PITTSBURGH AT GREENSBURG

In 1993, James Erin McKinney was convicted in an Arizona court of committing two robberies and murders over the course of 13 days. McKinney was convicted by a jury of first-degree murder and faced a possible death sentence.

At the capital sentencing hearing, the judge was asked to determine the appropriate sentence—death or life imprisonment—by weighing aggravating and mitigating factors that would favor a death (greater) or life (lesser) sentence.

During the hearing, a psychologist testified that McKinney suffered from post-traumatic stress disorder (PTSD)—a potential mitigating factor—due to a "horrific childhood" that included early substance use and multiple attempts to leave home, as well as a stint in a juvenile detention facility.

Yet when considering a potential death sentence, Arizona law permitted the judge to consider only nonstatutory mitigating factors that were "causally related to the commission of the crime." As a result, the judge did not consider McKinney's childhood and PTSD as mitigating factors because these issues occurred before the crime in question. The judge ultimately sentenced McKinney to death.

In December, the U.S. Supreme Court heard oral arguments to decide whether the judge should have been allowed to consider this mitigating evidence at trial.

Many states do have mitigation statutes that include a "catch-all" element that allows the defense to use any mitigating evidence they believe will lessen the likelihood of a potential death sentence. But how such mitigating evidence is used by defense attorneys and perceived by judges and jurors is less clear. Fortunately, psychological research has shed some light on this issue.



AT ISSUE

What may appear to be a mitigating circumstance, such as being a victim of child abuse, may not be mitigating at all.

Some aspects of a defendant's background, such as an impoverished childhood—as in the McKinney case—seem intuitively mitigating. Yet a 2010 study by Margaret Stevenson, PhD, and colleagues examined the effect of childhood abuse on jurors' discussions in capital cases, and found that that was not always true. Instead, "jurors were more likely to argue that child abuse (and alcohol abuse) should not be used as mitigators, or to even use them against the defendant as aggravators, than they were to use them as mitigators" (*Psychology, Public Policy, and Law,* Vol. 16, No. 1, 2010).

Thus, what may appear on its face to be a mitigating circumstance, such as being a victim of child abuse or being under the influence of alcohol at the time of the crime, may not be mitigating at all. And perhaps more important, this study and other studies like it have found that whether a factor is mitigating likely depends upon the individual characteristics of the decision-makers as well as how the specific mitigating circumstance interacts with other case facts, or other aggravating and mitigating circumstances.

There are a few take-home points from this discussion. The first is that defense attorneys should use caution when assuming that a factor is actually mitigating to judges and jurors. The second is that this research also reminds us to consider the interactive effects between mitigating circumstances and other case evidence. As a potential mitigating factor may be mitigating in some cases but not others, it is important to consider such evidence in the broader context of other dispositional and case factors. ■

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

ROMZICON/THE NOUN PROJECT



People with hoarding disorder often attach meaning to all of their possessions and become overwhelmed by the stuff they can't let go.

CE

CONTINUING EDUCATION TREATING PEOPLE WITH HOARDING DISORDER

BY KIRSTEN WEIR

Randy Frost, PhD, remembers a client excitedly showing him a large plastic bag crammed with bottle caps. "She thought they were beautiful," explains Frost, a professor of psychology at Smith College in Massachusetts who studies and treats hoarding disorder, a condition marked by a persistent difficulty discarding possessions, regardless of their utility or value.

"When I look at a bottle cap, my brain thinks, Where can I find a wastebasket? But in her brain, there are all of these rich associations about the color, shape, texture and what an artist might have been able to do with the bottle caps, even though she wasn't an artist herself," he says. "In many ways, hoarding is an ability to appreciate physical characteristics that goes far beyond what the rest of us can do."

That blessing is also a curse. People with hoarding disorder can become overwhelmed by the sheer volume of the stuff they can't let go. At its worst, the cluttered piles of possessions can limit functional living space, anger and alienate family members—and create a public health hazard.

While hoarding is complex and hard to treat, in the last few years, psychologists have made progress toward better understanding the cognitive and neural underpinnings of the disorder and what kinds of treatments can help, Frost says. "It's not just a clutter issue—in fact, there are people whose lives are at stake."

CLASSIFYING HOARDING

Hoarding disorder was only given its own diagnostic criteria in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders, the DSM-5, in 2013. "That was a big turning point," says Carolyn Rodriguez, MD, PhD, director of the hoarding disorder research program and an associate professor at Stanford University. "Having a common definition has allowed for a better sense of prevalence, and is helping us to focus our research efforts."

About 2.5% of the general population meets the criteria for hoarding disorder according to the current definition, with similar rates found in men and women and across developed countries (Postlethwaite, A., et al., *Journal of Affective Disorders,* Vol. 256, 2019). Hoarding behaviors often emerge in adolescence or early adulthood, and tend to get worse with each passing decade. About half of people with the disorder have comorbid depression, Frost says. Attention-deficit hyperactivity disorder and anxiety disorders also seem to be more prevalent among people with hoarding disorder than in the general population.

Before 2013, hoarding was considered a subtype of obsessive-compulsive disorder (OCD). While it's still classified as a related disorder, it's a phenomenon distinct from typical OCD, says psychologist David Tolin, PhD, ABPP, director of the Anxiety Disorders Center at the Institute of Living at Hartford Hospital and adjunct professor at Yale University School of Medicine. "Most people with hoarding disorder don't have classic OCD symptoms—they're not plagued by intrusive, recurrent thoughts."

Hoarding disorder is marked by three major characteristics. The most obvious is difficulty letting go of material possessions. The second is excessive or compulsive acquisition of new items. Not everyone with hoarding disorder has the acquiring component, though most do, Frost says. The third is disorganization and an inability to prevent clutter. Unlike collectors who keep their collections neat and organized, people with hoarding disorder are more likely to have piles of

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

1. Identify the major characteristics of hoarding disorder and the risks associated with hoarding.

2. Understand the cognitive and neural underpinnings of hoarding disorder.

3. Discuss the most promising treatments and interventions for the disorder.

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PATTI MCCONVILLE/ALAMY STOCK PHOTO

paper in the bathroom and boxes of broken tools in the kitchen. "One thing that's notable about hoarding disorder is the level of disorganization," Rodriguez says.

COGNITIVE DISORGANIZATION

That disorganized home seems to parallel a disorganization in cognitive functioning. In a review of research on the cognitive processes related to hoarding, psychologist Sheila Woody, PhD, director of the Centre for Collaborative Research on Hoarding at the University of British Columbia, and colleagues found that people with hoarding disorder showed deficits in sustained attention, working memory, organization and problem-solving. They also had lower visuospatial ability relative to healthy controls and to people with other mental health disorders (*Clinical Psychology Review,* Vol. 34, No. 4, 2014).

However, the results of research on cognitive deficits in hoarding are inconsistent, and scientists are still sorting out the nature of those deficits, says Kate Kysow, a doctoral student studying with Woody at the University of British Columbia.

Still, she adds, it's clear that people with hoarding disorder *perceive* themselves to have a range of cognitive deficits. Tolin and colleagues, for example, found that those with the disorder self-reported more difficulties with memory, distractibility and attention. The degree of that subjective impairment correlated with the severity of their saving and acquiring behaviors (*Psychiatry Research,* Vol. 265, 2018).

Such cognitive problems all come together to undermine the reinforcement patterns that let most people let go of their possessions, Frost says. Typically, using an object reinforces one's desire to keep it. That means that if a person never makes pancakes, he or she probably wouldn't struggle too much to give away an unused griddle that's taking up cupboard space. But for people with hoarding disorder, "the reinforcement pattern doesn't seem to be with the usefulness of an object but with the meaning it holds," Tolin says.

Of course, we all attach meaning to our belongings. We save ticket stubs for sentimental reasons, hang on to spoons and sofas for their utility, and keep artwork for its aesthetic value. But people with hoarding disorder are more likely to apply such meanings to every item—and often assign multiple meanings to each object, Frost says. "People with hoarding disorder have an inability to manage all of the associations they have with their possessions."

To understand why, Tolin has looked for clues in the brain. Using fMRI, he and his colleagues found that compared with people with major depressive disorder and healthy controls, people with hoarding disorder have lower connectivity in brain regions associated with cognitive control, and greater connectivity in the default mode network, a brain network active when one's thoughts are focused inward rather than on the outside world (*Journal of Psychiatric Research,* Vol. 113, 2019).

In earlier work, Tolin compared the neural activity of people with hoarding disorder, people with OCD and healthy controls as they made decisions about discarding their own possessions or items that belonged to others. When considering other people's belongings, those with hoarding disorder showed less activity in brain areas that make up the salience network, which is involved in detecting and responding to relevant stimuli. But when deciding about their own possessions, people with hoarding disorder showed hyperactivity in the same brain areas (*Archives of General Psychiatry,* Vol. 69, No. 8, 2012). "This suggests people with hoarding disorder can't make fine-grained decisions about what's important because their brains are screaming that everything is important," Tolin says.

HOARDING COALITIONS

Hoarding isn't just a mental health disorder—it's also a public health problem. Pest management can be difficult in the homes of people who hoard. Their windows and doors can become blocked and walkways impassible, making their homes unsafe not only for themselves but also for first responders such as firefighters. That's why many cities have formed task forces to address the public health risks. Such task forces often involve social services, public health, housing code enforcement, and even animal control in cases where people hoard pets (Bratiotis, C., *Health and Social Care in the Community*, Vol. 21, No. 3, 2013).

"Hoarding is distinct from many other mental health disorders because intervention often requires the engagement of the community," says Kysow. Her adviser, Woody, is studying

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Workshops based on cognitive-behavioral therapy principles help people with hoarding disorder gain control over their clutter.

the outcomes of interventions by community-based hoarding coalitions such as the Vancouver Hoarding Action Response Team, a joint initiative between the local provincial health system and the fire and rescue prevention division (Bratiotis, C., et al., *Families in Society: The Journal of Contemporary Social Services,* Vol. 100, No. 1, 2019). The activities of such coalitions and task forces vary from one community to the next but often include assessing homes for fire risk and safety, removing hazardous items, facilitating residents' engagement with local crisis services, providing treatment referrals, liaising between residents and housing providers, and arranging for emergency shelter if necessary.

Woody's early results suggest such task force interventions may help people reduce clutter and avoid eviction, though client avoidance and limited resources are common barriers. Unfortunately, such community interventions are often short on mental health experts, Kysow adds. "The goal of these coalitions isn't to stop hoarding but to make homes safer and prevent eviction," she explains.

TREATMENTS FOR HOARDING

Although hoarding task forces aren't focused on mental health treatment, there is evidence that psychotherapy is helpful in treating the disorder. So far, cognitive-behavioral therapy (CBT) is the most well-studied intervention for hoarding. Frost and Gail Steketee, PhD, a professor of social work at Boston University, developed a 26-session CBT program specific to hoarding disorder, which they describe in a therapist guide ("Treatment for Hoarding Disorder," Oxford University Press, 2013). The program includes a variety of components, including cognitive therapy to change beliefs about hoarding, practice in reducing excessive acquisition, practice in discarding possessions, skills training in organizing items and staying focused on tasks, and motivational interviewing to help clients stay engaged.

Tolin and his colleagues published a meta-analysis of studies on CBT for hoarding disorder and found that CBT resulted in a significant decrease in symptoms across studies, with the strongest effects on discarding behaviors. Despite those improvements, though, most participants still showed clinically significant hoarding behaviors after treatment (*Depression and Anxiety,* Vol. 32, No. 3, 2015). "People show significant improvement, but the majority still have hoarding disorder at the end of treatment," Tolin says.

Indeed, while CBT can help reduce symptoms, it appears to be less effective for hoarding disorder than it is for other disorders, such as depression or anxiety. And it may not be the best option for every population, says Catherine Ayers, PhD, ABPP, a professor of psychiatry at the University of California, San Diego, who studies hoarding disorder in older adults. She found that CBT for hoarding disorder wasn't as helpful for older adults as it was for younger people. That's significant, she notes, given that hoarding disorder is more prevalent in older people and tends to worsen with age. To treat older adults with hoarding disorder, she created a treatment based on cognitive rehabilitation, which was modeled on interventions for people with traumatic brain injury. "We teach them how to categorize, plan and problem solve. They go item by item,

KEY POINTS

1. **Hoarding disorder is marked by three characteristics: difficulty discarding objects, disorganization/clutter, and, in some cases, compulsive acquisition of new items.**
2. **People with hoarding disorder may have deficits in cognitive functions such as attention, memory, organization and problem-solving.**
3. **Cognitive-behavioral therapy (CBT) is the best-studied treatment for hoarding disorder.**
4. **Interventions are only somewhat effective. While CBT reduces symptoms, most people still exhibit hoarding behaviors after treatment.**

deciding what to keep or discard," she says. "Over time, they learn they can tolerate the distress of discarding."

In a trial of the 26-session program, Ayers and colleagues found participants had a 40% reduction in hoarding symptoms, and the improvements were maintained at a follow-up six months later (*The Journal of Clinical Psychiatry,* Vol. 79, No. 2, 2018). While 40% fewer symptoms is a long way from a cure, she says that any intervention that reduces symptoms can have a big impact on people's lives. "Numbers don't capture the fact that people can now use their toilet or their kitchen sink. They're having friends and family over for the first time in decades," she says.

DECLUTTERING HELP

One reason hoarding is so hard to treat is that people derive great joy from their acquisitions and belongings, says Kysow. People with mental health disorders such as depression or anxiety often feel quite distressed, which can inspire them to seek treatment. But people with hoarding disorder don't necessarily feel distressed about their cluttered homes—unless they're faced with the thought of getting rid of their belongings. "One of the biggest treatment challenges is that they can be so motivated to continue hoarding," she says.

Indeed, motivational interviewing is often an important piece of hoarding treatment, Frost says. But while psychotherapy can be helpful, there aren't many mental health professionals who specialize in hoarding, and it can be difficult for people with the disorder to access or afford services. To address that need, Frost, Tolin and Steketee developed Buried in Treasures, a workshop using CBT principles that's led by a nonpsychologist facilitator or peer. Buried in Treasures workshops are now offered in at least a dozen states and in countries outside the United States, Frost says. He and his colleagues showed that participants in the workshop had reduced hoarding symptoms compared with those in a waitlist control group (*Behaviour Research and Therapy,* Vol. 50, No. 11, 2012). And research by University of Florida psychiatrist Carol A. Mathews, MD, and colleagues found that people who participated in the Buried in Treasures program had improvement rates similar to those who received CBT interventions led by psychologists (*BJPsych Open,* Vol. 4, No. 4, 2018).

Individual CBT and the Buried in Treasures workshops typically take place in clinical settings. While TV reality shows feature in-home decluttering marathons, such interventions are logistically challenging for most clinicians. But researchers including Frost and Rodriguez are studying whether and how to include decluttering training in treatment. Frost is working with "clutter interns"—students who work closely with psychotherapists and visit clients at home to help them sort their belongings. And in a pilot study, Rodriguez found that combining in-home decluttering sessions with the Buried in Treasures workshop led to a decrease in hoarding symptoms, decreased clutter and improvements in the activities of daily living (Linkovsky, O., et al., *Journal of Psychiatric Research,* Vol. 107, 2018). She and her colleagues are also exploring virtual reality systems that scan a client's home so they can practice sorting their own virtual objects in the clinic.

FURTHER READING

Hoarding: For Mental Health Professionals
International OCD Foundation
https://hoarding.iocdf.org/professionals

The Oxford Handbook of Hoarding and Acquiring
Frost, R.O., & Steketee, G. (Eds.)
Oxford University Press, 2014

Buried in Treasures: Help for Compulsive Acquiring, Saving, and Hoarding (2nd ed.)
Tolin, D., et al.
Oxford University Press, 2013

Prevalence of Hoarding Disorder: A Systematic Review and Meta-Analysis
Postlethwaite, A., et al.
Journal of Affective Disorders, 2019

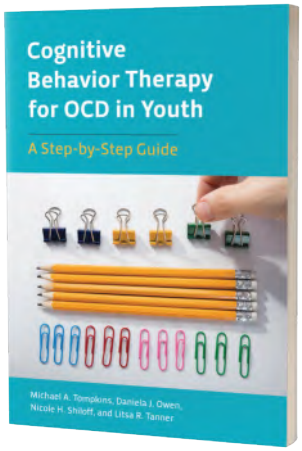
CLEANING UP

There's still a lot to learn about what treatments work, for whom and why. "What we don't know about hoarding disorder would fill a book," Tolin says. He's exploring differences in neural connectivity between people who respond well to CBT for hoarding and people who do not, hoping such clues will help researchers refine interventions. Similarly, Ayers says, an important next step for researchers will be to personalize treatments depending on a person's neurocognitive profile.

Although treatments for hoarding disorder are still imperfect, Tolin says, hoarding is a topic that clinicians should raise with patients, especially those being treated for depression or anxiety. "We found a lot of patients in our anxiety disorders clinic actually have undisclosed hoarding disorder," he says. "Many come in for something else and don't mention hoarding unless you ask them."

Fortunately, the research literature is growing. The International OCD Foundation offers assessments and treatment information and hosts an annual meeting on hoarding. "Friends and family members think the person should just be able to clean up, but this isn't something that they choose to do," Ayers says. "This is a chronic and progressive mental health condition that needs treatment." ■

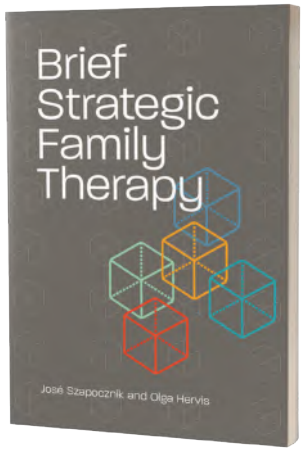
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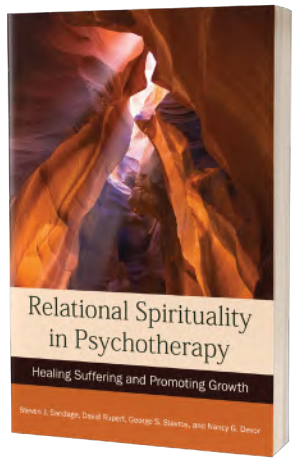
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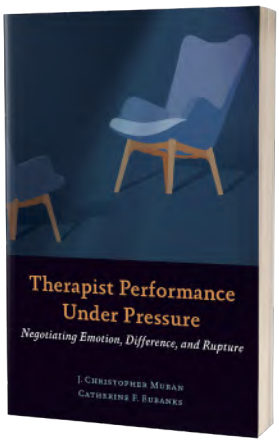
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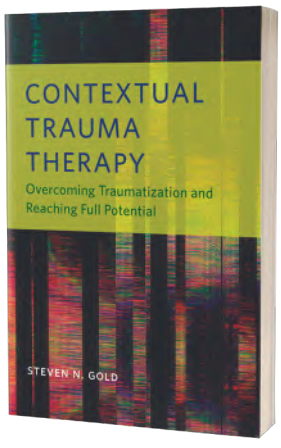
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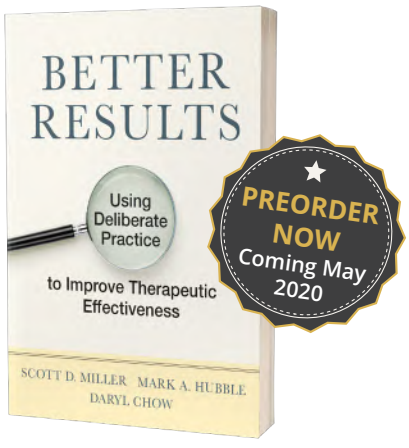
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What do we really know about



KIDS AND SCREENS?

Research by psychologists and others is giving us a better understanding of the risks and potential benefits of children's and teens' use of digital devices

BY STEPHANIE PAPPAS



KATLEHO SEISA/GETTY IMAGES

By the time research on screen time reaches the public, it's often framed in black-and-white terms: guidelines setting out strict time limits, or news reports with titles like "Are Screens Bad for Kids?" ¶ In reality, though, screen time research has been less than definitive, mainly owing to a lack of strong longitudinal studies to date. That's now beginning to change as psychologists and other child development experts take a deeper and increasingly nuanced look at children's and teens' use of tablets, phones and other screens. Researchers are now paying close attention to the kinds of content kids are consuming via digital devices. They're looking at the environment that surrounds screen time, including parenting and socioeconomic status. And they're buckling down for the long haul, building new longitudinal studies that will help answer complex questions about kids, teens and screens.

In particular, they're studying both the potential benefits of screens—if they can be used as teaching tools—and the potential physical and mental health drawbacks.

The picture that has emerged suggests that the youngest children don't learn well from screens. As kids get older, they can learn meaningful information from screens, but the ubiquity of digital devices also means that children can easily spend far too much time being sedentary. Nevertheless, total abstinence from recreational screen time may backfire for older kids and teens.

Meanwhile, many questions remain about how much screen time is too much and about the effects of different types of activities that involve screens.

"As psychologists, it's really important for us to have scientific-based evidence behind what we're recommending. We're not there yet," says Jerri Lynn Hogg, PhD, a media psychologist at Fielding Graduate University. "We have ideas, but the problem is that the technology is getting more and more sophisticated and more ubiquitous."

THE CHALLENGES OF SCREEN TIME

In all the popular-media hubbub and scientific debate over screen time, it's easy to forget how quickly these issues have evolved: The first-generation iPhone was introduced only 13 years ago, in 2007, the same year Netflix introduced streaming services. The iPad just saw its 10th birthday. Television and video games have been around for decades, of course, but never so portably and easily accessed.

Amid this rapid change, professional organizations such as the World Health Organization (WHO) and American Academy of Pediatrics (AAP) have stepped in with recommendations. AAP calls for no screen time at all for children until 18 to 24 months, except for video chatting, and says kids ages 2 to 5 should get an hour or less of screen time per day. It has also developed the Family Media Use Plan for older kids, in which parents and children negotiate limits and boundaries around screen usage. In its guidelines on physical activity, sedentary behavior and sleep for young children, WHO similarly recommends no screens for kids under 2, and less than an hour a day for kids 2 to 5.

However, some critics charge that much of the research backing up the guidelines is correlational, cross-sectional or based upon self-report—though there are longitudinal studies in the mix, too. And not all research effectively differentiates between



DAMIRCUDIC/GETTY IMAGES

Experts recommend that parents co-view media with their kids to help them understand what they're seeing online.

different types of screen time. Many studies lump all screen time together into one category, though it seems unlikely that video chatting with Grandma, for example, would have much in common with playing "Grand Theft Auto V."

Isolating the effects of screens from all the other experiences kids are exposed to is a challenge as well. It would be difficult indeed to run a long-term, randomized study in which children were assigned to different amounts of screen time each day and then tracked over their life spans to measure well-being outcomes. Imagine the look on a parent's face when told their child would be required to watch six hours of television every day—or that they could never watch a screen at all.

What is clear is that many parents often don't enforce the screen time limits suggested by the guidelines. For example, a study led by economist Weiwei Chen, PhD, of Florida International University, found that, as of 2014, children age 2 and under in the United States averaged 3 hours, 3 minutes a day of screen time, up from 1 hour, 19 minutes a day in 1997. Three- to 5-year-olds got 2 hours, 28 minutes a day of screen time, on average, during that time period (*JAMA Pediatrics*, Vol. 173, No. 4, 2019).

Qualitative studies suggest several reasons for the widespread screen use. One survey of 133 parents of preschool-age kids led by Rutgers University professor of nutritional sciences Carol Byrd-Bredbenner, PhD, for example, found that many parents reported lacking affordable alternative entertainment for their kids. Others cited factors such as their own exhaustion, the need to get things done around the house and bad weather for excess screen time (*Journal of Nutrition Education and Behavior*, Vol. 47, No. 4, 2015).

BABIES, TODDLERS, PRESCHOOLERS AND SCREENS

Research has, however, turned up evidence to support limiting screen time for babies and young children. One longitudinal study of 2,441 mothers and children, led by University of Calgary psychologist Sheri Madigan, PhD, found that more time per week spent on screens at ages 24 months and 36 months was linked with poorer performance on screening tests for behavioral, cognitive and social development at 36 months (*JAMA Pediatrics*, Vol. 173, No. 3, 2019). The opposite association (poorer development leading to more screen time) was not seen, suggesting that the linkage wasn't a matter of parents leaning on screen time to handle a challenging child. Instead, the excessive screen time seemed to precede the developmental difficulties.

Despite experts' concerns, media for babies and toddlers has been on the market for years,

SINCE THE EARLY DAYS OF "SESAME STREET," RESEARCH HAS FOUND THAT PRESCHOOLERS CAN LEARN FROM SLOW-PACED, THOUGHTFULLY DESIGNED CHILDREN'S MEDIA.

often with promises of stimulation and education—the Baby Einstein videos are one prominent example. But the evidence is strong that screens aren't an effective teaching tool for the baby and toddler set, and they could displace the kinds of face-to-face interactions that actually help young kids learn. A 2005 review led by developmental psychologist Daniel Anderson, PhD, now a professor emeritus at the University of Massachusetts, Amherst, found that television viewing consistently failed to teach kids age 2 and younger as much as live interaction (*American Behavioral Scientist*, Vol. 48, No. 5, 2005). This "video deficit" was seen in simple imitation tasks, in language learning and in emotional learning.

"The basic pattern that has been found in dozens of studies is that children learn better from a person who is with them face-to-face than from a person on a screen, even if it's the exact same person doing the exact same thing," says Georgene Troseth, PhD, a psychologist at Vanderbilt University.

More recently, researchers like Troseth are trying to understand why this screen learning gap occurs in toddlers. That toddlers struggle to learn from videos does not seem to be perceptual, Troseth says, but conceptual: Until they're around age 3, kids seem to view video as irrelevant to real life. In numerous studies, toddlers shown video of an experimenter hiding a toy in the room next door are terrible at finding that toy in the real room immediately afterward. In one study co-authored by Troseth, however, toddlers who watched a toy being hidden on a screen disguised to look like a window were much better at finding the toy than toddlers who saw the toy hidden on a regular screen (*Child Development*, Vol. 69, No. 4, 1998). "When they were told they were watching through a window, they were willing to take in the information," Troseth says. "The idea when they're watching on TV seems to be, 'You're not going to fool me, I know that's not real.'"

Though screen time recommendations for the youngest kids now make exceptions for video chatting, the evidence also suggests that toddlers find this medium confusing and that they struggle to make sense of video chat unless they have help from an adult who is physically present. In one study by Troseth and her colleagues, for example, 2-year-olds were assigned to either watch a prerecorded video intended to teach them new words or to engage in a word-learning video chat session with an experimenter. In half of the cases, the child's parent simply sat with the child. In the other half, the parent followed the experimenter's directions, modeling interactions with the video screen. A live video chat kept the kids' attention better than a prerecorded video, but only kids whose parents participated alongside them were able to learn new words from the screen (*Journal of Experimental Child Psychology*, Vol. 166, 2018).

Three- to 5-year-olds, on the other hand, are a bit more savvy. Since the early days of "Sesame Street," research has found that this age group can learn from slow-paced, thoughtfully designed children's media. For example, in tests of prereading skills such as alphabet recognition and letter sounds, kids who were randomly assigned to watch a 20-episode run of the literacy show "Super Why!" outperformed kids who were assigned to watch an educational science series, according to a study of 171 preschoolers conducted by Deborah Nichols, PhD, the director of the Children's Media Lab at Purdue University (*International Journal for Cross-Disciplinary Subjects in Education*, Vol. 6, No. 1, 2015). Children from low socioeconomic backgrounds generally saw greater gains than children in the wealthiest families, possibly because the more privileged children were already exposed to more literacy enrichment than the less-advantaged group.

Television's educational potential isn't limited to academic skills: A study of the PBS show "Daniel Tiger's Neighborhood" led by Texas Tech University media researcher Eric Rasmussen, PhD, found that kids who were randomly assigned to watch the program showed greater emotion recognition, empathy and self-efficacy—*if* those children also came from homes where parents consistently talked to their children about their TV viewing (*Journal of Children and Media*, Vol. 10, No. 4, 2016). As with toddlers, preschoolers seem to benefit from adults co-viewing their media.

Co-viewing may seem a steep price to pay for parents who are desperate to use their child's

KEY FINDINGS TO DATE

1. **Children under age 2 don't learn from screens as well as they do from live interactions.**
2. **Co-viewing media with parents can protect young kids against many downsides of screen time.**
3. **Television viewing time is correlated with obesity in youth.**
4. **Meeting sleep, screen time and physical activity guidelines is associated with the best mental health outcomes in teens, but few adolescents meet all three.**



MIXETTO/GETTY IMAGES

Some studies have found that children's mental health is better when they have one hour of physical activity per day and spend less than two hours on screens.

screen time to make dinner or pack tomorrow's lunch, but it doesn't have to be a full-time job, Hogg says. Rather, she recommends parents should aim to scaffold their child's screen time, first watching a few episodes with them and talking about the content, then stepping back and checking in as the child becomes familiar with how media works.

GROWING UP DIGITAL

As children mature, they're exposed to more screens, with more diverse content via television, video games and social media. A report released in October 2019 by the nonprofit organization Common Sense Media found that 8- to 12-year-olds in the United States now use screens for entertainment for an average of 4 hours, 44 minutes a day, and 13- to 18-year-olds are on screens for an average of 7 hours, 22 minutes each day (*The Common Sense Census: Media Use by Tweens and Teens*, 2019). These numbers don't count time using screens for schoolwork or homework.

Common Sense Media's data also reveal a substantial disparity in media use based on socioeconomic status, with 8- to 12-year-olds from high-income families using 1 hour, 50 minutes less of media each day than kids of the same age from low-income families. Teens show a similar gap. Previous research has suggested that increased screen time in poorer families may be an attempt by parents to protect their children; studies in multiple countries have found that parent anxiety about neighborhood safety and actual neighborhood safety are linked to more screen time and less physical activity. For example, health researchers Valerie Carson, PhD, of the University of Alberta, and Ian Janssen, PhD, of Queen's University in Kingston, Ontario, found that kids who lived in neighborhoods with the highest social and physical disorder (such as crime, graffiti and gang activity) had a 40% to 60% higher likelihood of high screen use (*International Journal of Behavioral Nutrition and Physical Activity*, Vol. 9, No. 66, 2012). Higher-income families may also have more alternatives to screen time available, in the form of extracurricular activities and safe recreation areas.

As with young children, there are reasons for concern over large amounts of screen time in tweens and teens. Correlational studies have shown that 8- to 11-year-olds who exceed screen time recommendations scored lower on cognitive assessments, with compliance with recommendations explaining about a fifth of the overall variance in cognitive scores (*The Lancet Child & Adolescent Health*, Vol. 2, No. 11, 2018). A combination of screen time and too little sleep has also been associated with heightened impulsivity in the same age group (*Pediatrics*, Vol. 144, No. 3, 2019).

These studies weren't designed to show causal relationships, though, says Gary Goldfield, PhD, a psychologist at the University of Ottawa who co-authored both studies. It could be that increased impulsivity or struggles with cognition drive the excess screen time. Nevertheless, in numerous studies, Goldfield and his team have consistently found the best mental health and cognitive outcomes in teens who do one hour of physical activity each day, sleep eight to 10 hours a day and

SCREEN TIME

Average use per day, not including schoolwork or homework

8- to 12-year-olds

4 hours 44 minutes

13- to 18-year-olds

7 hours 22 minutes

Source: Common Sense Media, *The Common Sense Census: Media Use by Tweens and Teens*, 2019

use screens recreationally less than two hours a day.

Researchers have also found links between screen time and various health outcomes in teens, though again, establishing definitive causal relationships is difficult. The firmest associations are between screen time and obesity and screen time and depressive symptoms, according to a systematic review of reviews published by University College London (UCL) psychologist Neza Stiglic, PhD, and Russell Viner, PhD, a professor of adolescent health at UCL (*BMJ Open*, Vol. 9, No. 1, 2019). Most research on obesity focused on television viewing and found that more time spent watching TV was associated with a higher body mass index or body fat composition. Multiple studies also found that screen use of more than two hours a day was correlated with depressive symptoms. The reviewers found moderate evidence linking screen time to poorer quality of life, higher caloric intake and less-healthy diets. Evidence linking screen time to other problems, such as behavior issues, anxiety, and low feelings of well-being and self-esteem, was weak, with studies on these outcomes returning mixed results.

A study led by psychologists Amy Orben, PhD, of the University of Cambridge, and Andrew Przybylski, PhD, of the University of Oxford, found that screen time as measured by time-use diaries (as opposed to retrospective self-reports, which many studies use) in large did not have noticeable effects on teen psychological well-being, according to nationally representative data sets in the United States, United Kingdom and Ireland (*Psychological Science*, Vol. 30, No. 5, 2019). But other research points to complicated relationships between screen time and well-being. For example, a study led by physician Pierre-André Michaud, MD, of the Institute of Social and Preventive Medicine in Lausanne, Switzerland, found a U-shaped relationship between internet use and adolescent mental and physical heath, such that moderate users were the best off (*Pediatrics*, Vol. 127, No. 2, 2011).

"A lot depends on how kids are using media, how much their parents are monitoring their use, how much time they're spending and what exactly they're watching and using," says Victor Strasburger, MD, a pediatrician and professor emeritus at the University of New Mexico School of Medicine.

FURTHER READING

Screen Time in Children and Adolescents: Is There Evidence to Guide Parents and Policy?
Ashton, J.J., & Beattie, R.M
The Lancet Child & Adolescent Health
2019

Do Policy Statements on Media Effects Faithfully Represent the Science?
Elson, M., et al.
Advances in Methods and Practices in Psychological Science
2019

Digital Screen Time Limits and Young Children's Psychological Well-Being: Evidence From a Population-Based Study
Przybylski A.K., & Weinstein, N.
Child Development
2019

FUTURE RESEARCH AND RECOMMENDATIONS

Fortunately, a new longitudinal data set may help illuminate some of the outstanding questions about adolescents and screen time. In 2015, the National Institutes of Health began funding the Adolescent Brain Cognitive Development (ABCD) Study, the largest ever longitudinal study on teen brain and behavioral development in the United States. More than 10,000 9- to 10-year-olds have been recruited and are being followed to young adulthood. Screen time data are among the information being collected, and researchers are already using the first wave: Goldfield's cognition and impulsivity studies drew from ABCD data. "We're pretty excited about this database," he says.

In the meantime, some experts recommend a mindful approach to media. Simply banning screens may backfire, says Jon Lasser, PhD, a psychologist at Texas State University and co-author, with Mike Brooks, PhD, of the 2018 book "Tech Generation: Raising Balanced Kids in a Hyper-Connected World."

"It's important for kids to develop the capacity to self-regulate," Lasser says, "and parents who try to micromanage screen time may inadvertently interfere with that self-regulatory development."

Lasser and Brooks include a tool in their book called the Family Assessment of Screen Time, or FAST, which family members can use to gauge their feelings about screen time—their own and each other's. The tool is similar to AAP's Family Media Use Plan, in which parents and children, 5 years and older, negotiate limits and boundaries around screen usage.

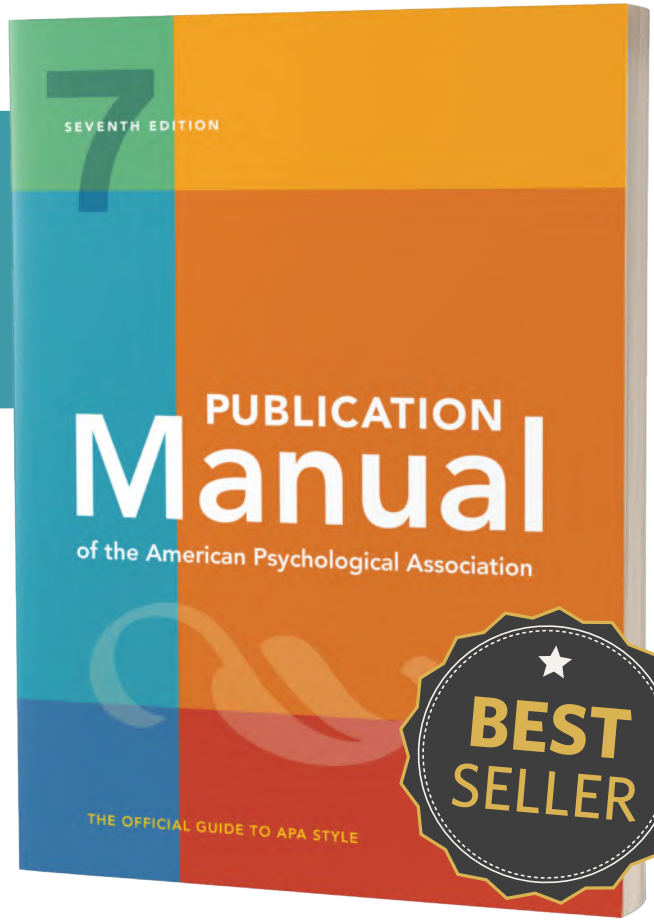
Finally, parents should keep co-viewing media with their kids. Keeping an open line of communication around media helps protect kids when they inevitably run into content they aren't ready to see, Strasburger says. A healthy, nonrancorous relationship around media also makes it easier to enforce boundaries when required.

"The number one recommendation that we give to parents is [to] spend time engaged with their kids," Lasser says. "It's simple, it's good parenting and it promotes a healthy relationship." ■

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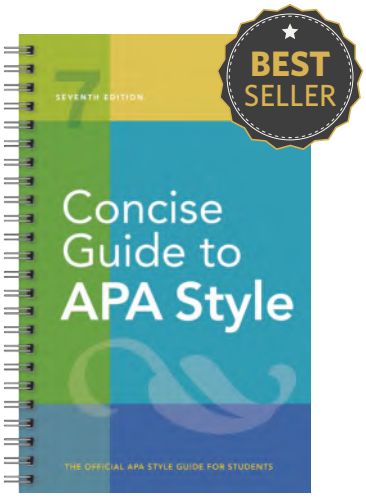
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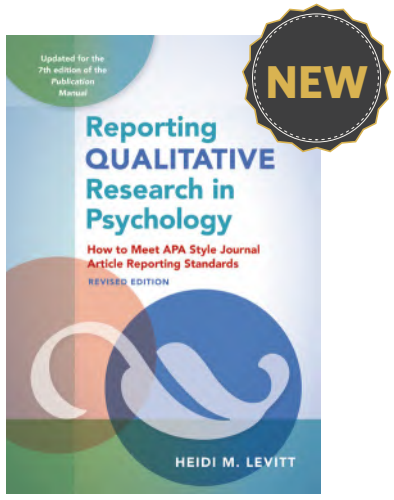
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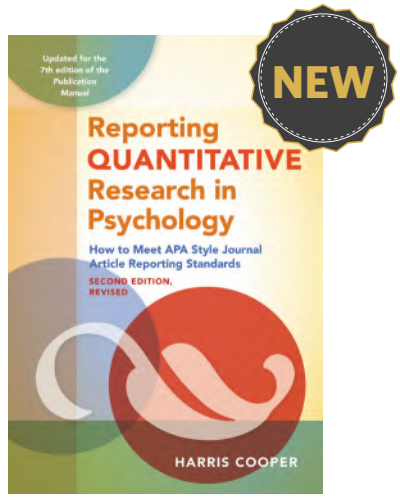


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NURTURED *by* NATURE

Psychological research is advancing our understanding of how time in nature can improve our mental health and sharpen our cognition

BY KIRSTEN WEIR

FLOREA PAUL DANIEL/DREAMSTIME

Be honest: How much time do you spend staring at a screen each day? For most Americans, that number clocks in at more than 10 hours, according to a 2016 Nielsen Total Audience Report. Our increasing reliance on technology, combined with a global trend toward urban living, means many of us are spending ever less time outdoors—even as scientists compile evidence of the value of getting out into the natural world. ¶ From a stroll through a city park to a day spent hiking in the wilderness, exposure to nature has been linked to a host of benefits, including improved attention, lower stress, better mood, reduced risk of psychiatric disorders and even upticks in empathy and cooperation. Most research so far has focused on green spaces such as parks and forests, and researchers are now also beginning to study the benefits of blue spaces, places with river and ocean views. But nature comes in all shapes and sizes, and psychological research is still fine-tuning our understanding of its potential benefits. In the process, scientists are charting a course for policymakers and the public to better tap into the healing powers of Mother Nature.

"There is mounting evidence, from dozens and dozens of researchers, that nature has benefits for both physical and psychological human well-being," says Lisa Nisbet, PhD, a psychologist at Trent University in Ontario, Canada, who studies connectedness to nature. "You can boost your mood just by walking in nature, even in urban nature. And the sense of connection you have with the natural world seems to contribute to happiness even when you're not physically immersed in nature."

COGNITIVE BENEFITS

Spending time in nature can act as a balm for our busy brains. Both correlational and experimental research have shown that interacting with nature has cognitive benefits—a topic University of Chicago psychologist Marc Berman, PhD, and his student Kathryn Schertz explored in a 2019 review. They reported, for instance, that green spaces near schools promote cognitive development in children and green views near children's homes promote self-control behaviors. Adults assigned to public housing units in neighborhoods with more green space showed better attentional functioning than those assigned to units with less access to natural environments. And experiments have found that being exposed to natural environments improves working memory, cognitive flexibility and attentional control, while exposure to urban environments is linked to attention deficits (*Current Directions in Psychological Science,* Vol. 28, No. 5, 2019).

Researchers have proposed a number of ideas to explain such findings, as Nisbet and colleagues described in a review of the benefits of connection with nature (Capaldi, C.A., et al., *International Journal of Wellbeing,* Vol. 5, No. 4, 2015). The biophilia hypothesis argues that since our ancestors evolved in wild settings and relied on the environment for survival, we have an innate drive to connect with nature. The stress reduction hypothesis posits that spending time in nature triggers a physiological response that lowers stress levels. A third idea, attention restoration theory, holds that nature replenishes one's cognitive resources, restoring the ability to concentrate and pay attention.

The truth may be a combination of factors. "Stress reduction and attention restoration are related," Nisbet points out. "And because of the societal problems we're dealing with in terms of stress, both of these theories have



BRIANAJACKSON/GETTY IMAGES

gotten a lot of attention from researchers."

Experimental findings show how impressive nature's healing powers can be—just a few moments of green can perk up a tired brain. In one example, Australian researchers asked students to engage in a dull, attention-draining task in which they pressed a computer key when certain numbers flashed on a screen. Students who looked out at a flowering green roof for 40 seconds midway through the task made significantly fewer mistakes than students who paused for 40 seconds to gaze at a concrete rooftop (Lee, K.E., et al., *Journal of Environmental Psychology,* Vol. 42, No. 1, 2015).

Even the sounds of nature may be recuperative. Berman and colleagues found that study participants who listened to nature sounds like crickets chirping and waves crashing performed better on demanding cognitive tests than those who listened to urban sounds like traffic and the clatter of a busy café (Van Hedger, S.C., et. al., *Psychonomic Bulletin & Review,* Vol. 26, No. 2, 2019).

NATURE AND HAPPINESS

While such laboratory experiments are intriguing, they don't fully capture the diverse benefits that go hand in hand with time spent in the outdoor world, says Cynthia Frantz, PhD, a professor of psychology and environmental studies at Oberlin College in Ohio. "Spending time in nature has cognitive benefits, but it also has emotional and existential benefits that go beyond just being able to solve arithmetic problems more quickly," she notes.

In a review of the research, Gregory Bratman, PhD, an assistant professor at the University of Washington, and colleagues shared evidence that contact with nature is associated with increases in happiness, subjective well-being, positive affect, positive social interactions and a sense of meaning and purpose in life, as well as decreases in mental distress (*Science Advances,* Vol. 5, No. 7, 2019).

Other work suggests that when children get outside, it leaves a lasting impression. In a study of residents of Denmark, researchers used satellite data to assess people's exposure to green space from birth to age 10, which they compared with longitudinal data on individual mental health outcomes. The researchers examined data from more than 900,000 residents born between 1985 and 2003. They found that children who lived in neighborhoods with more green space had a reduced risk of many psychiatric disorders later in life, including depression, mood disorders, schizophrenia, eating disorders and substance use disorder. For those with the lowest levels of green space exposure during childhood, the risk of developing mental illness was 55% higher than for those who grew up with abundant green space (Engemann, K., et al.,

Children who live in neighborhoods with more green space have a reduced risk of developing depression, mood disorders and other disorders later in life.

EXPERIMENTAL FINDINGS SHOW HOW IMPRESSIVE NATURE'S HEALING POWERS CAN BE—JUST A FEW MOMENTS OF GREEN CAN PERK UP A TIRED BRAIN.

PNAS, Vol. 116, No. 11, 2019).

There is even evidence that images of nature can be beneficial. Frantz and colleagues compared outcomes of people who walked outside in either natural or urban settings with those of people who watched videos of those settings. They found that any exposure to nature—in person or via video—led to improvements in attention, positive emotions and the ability to reflect on a life problem. But the effects were stronger among those who actually spent time outside (Mayer, F.S., et al., *Environment and Behavior,* Vol. 41, No. 5, 2009).

More recently, scientists have begun exploring whether virtual reality nature experiences are beneficial. In a review of this work, Mathew White, PhD, an environmental psychologist at the University of Exeter in England, and colleagues concluded that while the real deal is best, virtual reality can be a worthwhile substitute for people who are unable to get outdoors, such as those with mobility problems or illness (*Neuropsychiatric Disease and Treatment,* Vol. 14, 2018).

Nature might also make us nicer—to other people as well as to the planet. John Zelenski, PhD, a professor of psychology at Carleton University in Ontario, Canada, and colleagues showed undergraduates either nature documentaries or videos about architectural landmarks. Then the participants played a fishing game in which they made decisions about how many fish to harvest across multiple seasons. Those who had watched the nature video were more likely to cooperate with other players, and also more likely to make choices that would sustain the fish population (*Journal of Environmental Psychology,* Vol. 42, No. 1, 2015). In another experiment, Zelenski and his colleagues found that elementary school children acted more prosocially to classmates and strangers after a field trip to a nature school than they did after a visit to an aviation museum (Dopko, R.L., et al., *Journal of Environmental Psychology,* Vol. 63, No. 1, 2019).

Those generous behaviors weren't attributed to students' moods, Zelenski and his colleagues found, so it wasn't simply that spending time in nature made them happier and therefore more giving. Another plausible (though unproven) explanation is the emotion of awe. "There are some hints that awe is associated with generosity, and nature can be a way to induce awe," he says. "One of the things that may come from awe is the feeling that the individual is part of a much bigger whole."

KEY POINTS

1. **Spending time in nature is linked to both cognitive benefits and improvements in mood, mental health and emotional well-being.**
2. **Feeling connected to nature can produce similar benefits to well-being, regardless of how much time one spends outdoors.**
3. **Both green spaces and blue spaces (aquatic environments) produce well-being benefits. More remote and biodiverse spaces may be particularly helpful, though even urban parks and trees can lead to positive outcomes.**

EXPERIENCE VS. CONNECTION

With so many benefits linked to nature, people naturally wonder: How much time outside is enough? White and colleagues took a stab at answering that question by studying a representative sample of nearly 20,000 adults across the United Kingdom. They found people who had spent at least two recreational hours in nature during the previous week reported significantly greater health and well-being. That pattern held true across subgroups including older adults and people with chronic health problems, and the effects were the same whether they got their dose of nature in a single 120-minute session or spread out over the course of the week (*Scientific Reports*, Vol. 9, No. 1, 2019). "We're not saying we've cracked this nut yet, but this is a first step toward making specific recommendations about how much time in nature is enough," White says.

The amount of time one spends in nature isn't the only element to consider—it's also beneficial to feel connected to the natural world even when you're stuck at a desk. Researchers call this feeling by a variety of names, including nature relatedness, connectedness to nature and inclusion of nature in self, and they've developed a number of scales to measure the trait.

Whatever you call it, connectedness to nature seems to benefit mood and mental health. In a meta-analysis, Alison Pritchard, PhD, ABPP, at the University of Derby in England, and colleagues found that people who feel more connected to nature have greater eudaimonic well-being—a type of contentment that goes beyond just feeling good and includes having meaningful purpose in life (*Journal of Happiness Studies,* online first publication, 2019).

Zelenski and Nisbet studied whether connection itself is the magic ingredient. They assessed the overlap between connectedness with nature and a general sense of connectedness, such as feeling in tune with one's friends



"Blue spaces" like oceans and lakes may be even more restorative than green spaces, some research finds.

NICOLA MARGARET/GETTY IMAGES

or community. They found that feeling connected to nature was a significant predictor of happiness even after controlling for the effects of general connectedness (*Environment and Behavior,* Vol. 46, No. 1, 2014). "People who feel that their self-concept is intertwined with nature report being a bit happier," says Zelenski. "Nature connectedness isn't the biggest predictor of happiness, but [the association between the two] is quite consistent."

In fact, nature might help to buffer the effects of loneliness or social isolation. White and his colleagues surveyed 359 U.K. residents about their social connectedness and proximity to nature over the previous week. Social isolation is typically associated with worse subjective well-being. But the researchers found that when people with low social connectedness had high levels of nearby nature, they reported high levels of well-being (Cartwright, B.D.S., et al., *International Journal of Environmental Research and Public Health,* Vol. 15, No. 6, 2018). "There are people who don't necessarily want to spend their time with others, but they feel connected to the natural environment, and that can enhance their well-being," White says.

GREEN AND BLUE SPACES

It's clear that getting outside is good for us. Now, scientists are working to determine what types of environments are best. Much attention has gone to green spaces, but White has studied a variety of marine and freshwater environments and found these blue spaces are also good for well-being (Gascon, M., et al., *International Journal of Hygiene and Environmental Health,* Vol. 220, No. 8, 2017.) In fact, he says, they may even be slightly more restorative than green spaces.

There may also be value in trekking to remote locations. In a survey of 4,515 U.K. residents, White found that people reported more connection to nature and felt more restored after visiting rural and coastal locations than they did after spending time in urban green spaces. Areas deemed to be "high environmental quality"—such as nature reserves and protected habitats—were also more beneficial than areas with low biodiversity (Wyles, K.J., et al., *Environment and Behavior,* Vol. 51, No. 2, 2019). In other work, White and his colleagues found that people who watched nature videos with a diverse mix of flora and fauna reported lower anxiety, more vitality and better mood than those who watched videos featuring less biodiverse landscapes (Wolf, L.J., et al., *PLOS ONE,* Vol. 12, No. 1, 2017).

But there's an important caveat, White adds: "If you have a break from work and you've only got half an hour, then a wild remote place is no use to you at

FURTHER READING

Environmental Neuroscience
Berman, M.G., et al.
American Psychologist
2019

Nature and Mental Health: An Ecosystem Service Perspective
Bratman, G.N., et al.
Science Advances
2019

Ecotherapy: Theory, Research and Practice
Jordan, M., & Hinds, J. (Eds.)
Red Globe Press
2016

all." Urban parks and trees also produce positive outcomes. Just like a little exercise is better than none, we should take advantage of green and blue spaces wherever and whenever we can. That's easier said than done, though, especially for people at a socioeconomic disadvantage. Poorer neighborhoods, White notes, are seldom the ones with leafy groves and ocean views.

Yet policymakers, city planners, environmental organizations and government agencies are coming around to the importance of natural spaces, and psychologists are offering them their expertise, says White, who has presented his research to groups such as the U.K.'s Department for Environment, Food and Rural Affairs. Organizations and cities are expressing interest in this research, Zelenski says, though many policymakers are waiting to see the results of intervention studies before investing in green infrastructure. One of the United Nations' sustainable development goals includes the target of providing universal access to safe, inclusive and accessible green and public spaces by 2030.

There is urgency in fostering these connections, says Nisbet. Because while people benefit from their connection with the natural world, the environment also benefits when people feel connected and committed to caring for the Earth—and between climate change and habitat loss, the planet is in serious need of some care. "When people are disconnected from nature, they aren't motivated to work on wicked problems like climate change. We're losing the environments that contribute to our flourishing," she says. "The key question is, How do we help people feel connected to nature so we're motivated to protect the places that will help us thrive?" ■

ECOTHERAPY

BRINGING NATURE INTO TREATMENT

"Ecotherapy" is gaining traction as a means to help people tap into nature's therapeutic powers. The term covers a range of interventions, not all of which are evidence-based. But some psychologists are working to ground such programs in science, says Ryan Reese, PhD, a psychotherapist in Bend, Oregon. He and his colleagues developed a construct called **EcoWellness,** defined as **respect, appreciation and awe of nature** resulting in feeling connected and experiencing wellness (*International Journal for the Advancement of Counselling,* Vol. 37, No. 2, 2015). The instrument measures nature-based wellness and makes it easier to incorporate nature in psychotherapy, he says.

In a pilot study, Reese is using that framework to inform a six-week



outdoor therapy curriculum that combines fly-fishing and mindfulness instruction. But you don't have to don waders to help clients connect with nature. Psychologists are increasingly interested in **walking therapy,** in which they take their clients outside for fresh air and exercise during therapy, says C. Vaile Wright, PhD, director of research and special projects in APA's Practice Directorate.

While the technique is promising, Wright says, there's not much research on it yet, and psychotherapists should consider challenges before they head outside—such as how to handle issues of confidentiality when out in public.

Other psychologists are touching on nature experiences in therapy. Thomas Doherty, PsyD, a clinical and environmental psychologist in Portland, Oregon, mostly sees patients in the office environment, but he folds nature into his work by **encouraging patients to get outside** and find ways to connect with the natural world. "For example, I'll try to make sure that a young parent who loves mountain biking but hasn't gone in two years starts to integrate outdoor activity back into their life," he says. "There's a common process where people lose connection with nature as they take on more adult responsibilities. As psychotherapists, it's important to recognize the value of nature when we're establishing therapeutic goals with our clients."

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[1] https://www.apa.org/workforce/publications/15-health-service-career/table-2.pdf

HOW HARD IS IT TO STOP **ANTIDEPRESSANTS?**

New research suggests antidepressant withdrawal symptoms might be more common, more severe and longer lasting than previously realized **BY KIRSTEN WEIR**

PROZAC, THE FIRST SELECTIVE SEROTONIN REUPTAKE inhibitor (SSRI) approved in the United States, burst onto the scene in 1987. Three decades later, the drug and its eventual competitors have transformed the treatment of depression and anxiety. According to the latest data available, nearly 13% of people age 12 and older in the United States have taken an antidepressant medication in the past month (*NCHS Data Brief,* August 2017). ¶ But what happens when people want to stop taking these medications? The thinking in the medical community was that patients could wean off these drugs with minor side effects, but anecdotally, many patients have reported troubling mental

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and physical withdrawal symptoms that last for months or even years. Finding a lack of support from prescribers as they figure out how to stop the drugs, many people have turned to online forums for advice—where some report they've resorted to opening pill capsules to remove a few beads, in a DIY effort to reduce their dosages more gradually. ¶ Now, new research backs up the idea that for many people, antidepressant withdrawal might be a bigger problem than most have realized. ¶ "The idea that these side effects last a couple of weeks is outrageously inaccurate," says John Read, PhD, a professor of clinical psychology at the University of East London. "Withdrawal effects aren't rare, they aren't short-lived and they've been dismissed by drug companies for decades."

Thirty years after these drugs made their debut, scientists are still sorting out how antidepressants affect brain function and what happens when people try to stop taking them. As the evidence for withdrawal effects accumulates, some professional groups are revisiting guidelines for prescribers. Meanwhile, psychologists have a role to play in helping patients understand the effects of antidepressant drugs, and in supporting them through decision-making and possible side effects if they decide to discontinue them.

WITHDRAWAL SYMPTOMS

Today's SSRIs and the closely related serotonin-norepinephrine reuptake inhibitors (SNRIs) modify neurotransmitter activity in the brain. They're safer than older antidepressant drugs such as tricyclic antidepressants and monoamine oxidase inhibitors (MAOIs), which have significant side effects and toxicity issues. For some people, the newer drugs have brought welcome relief from depression and anxiety disorders. The APA Clinical Practice Guideline for the Treatment of Depression Across Three Age Cohorts supports their use as a first-line treatment for depression in adults.

Yet when people stop taking antidepressants, they can experience a constellation of withdrawal symptoms, says Maurizio Fava, MD, a psychiatrist at Massachusetts General Hospital (MGH) and executive director of the MGH Psychiatry Clinical Trials Network and Institute. In a randomized trial nearly 20 years ago, he and his colleagues showed that when patients' SSRIs were abruptly replaced with a placebo, they experienced a variety of effects including headaches, dizziness, fatigue, insomnia and flu-like symptoms, as well as irritability, aggression, anxiety, panic attacks and mood changes (Michelson, D., *British Journal of Psychiatry,* Vol. 176, No. 4, 2000). People also report "brain zaps," a feeling they describe as a jolt of electricity to the brain (Papp, A., *The Primary Care Companion for CNS Disorders,* Vol. 20, No. 6, 2018).

Pharmacologists have generally believed that any withdrawal effects from antidepressants were tied to their elimination half-life, a measure of how long it takes for half of the drug to be metabolized and eliminated from the body, Fava says. SSRIs like Paxil (paroxetine), which has a half-life of about one day, should be tapered down over a longer period than drugs like Prozac (fluoxetine), which has a half-life of two to four days.

To avoid withdrawal symptoms, professional guidelines recommend that patients should not stop antidepressants abruptly. The American Psychiatric Association's practice guidelines recommend tapering the medication over the course of "at least several weeks." But in the United Kingdom, the National Institute for Health and Care Excellence has recently amended its depression guidelines to state that withdrawal symptoms may be severe and protracted in some patients.



Withdrawal symptoms may include anxiety as well as headaches, fatigue, dizziness, insomnia and others.

That change was inspired by a review commissioned by the British Parliament and conducted by the University of East London's Read and James Davies, PhD, a psychotherapist and medical anthropologist at the University of Roehampton. Read and Davies undertook a systematic review of studies related to antidepressant withdrawal. From the 14 studies that provided usable data, they calculated that 56% of antidepressant users experienced withdrawal symptoms when they discontinued the medication. Just four studies looked at the question of severity, they found, but of those, 46% of people experienced severe symptoms. The duration of symptoms varied widely, but some patients reported problems lasting up to 79 weeks after stopping their medication (*Addictive Behaviors*, Vol. 97, No. 1, 2019).

LOWERING DOSES

Some of the largest studies in Read and Davies's review relied on online questionnaires. Critics point out that they may not represent the average antidepressant user since people who experience symptoms might be more likely to visit websites and online forums devoted to antidepressant side effects. Unfortunately, there's a lack of long-term, methodologically rigorous studies, says Mark Horowitz, PhD, a clinical research fellow at University College London and North East London National Health Service Foundation Trust, who has studied antidepressant withdrawal. Most of the data come from studies funded by pharmaceutical companies, and those tend to look at patients who were on the medications just eight to 12 weeks. "What we don't have are well-conducted studies in patients who have been on them for long periods of time," he says. "But while we don't have perfect information, there's enough evidence to say these symptoms may be more severe than was previously thought."

While Read and Davies looked at patients' experiences, Horowitz has come at the question from a neurobiology angle. With David Taylor, PhD, a professor of psychopharmacology at King's College London, he reviewed PET imaging data to better understand how SSRIs affect serotonin transporter activity in the brain (*The Lancet Psychiatry*, Vol. 6, No. 6, 2019). "We found they don't act in a linear way," Horowitz says.

At low doses, a small amount of an SSRI has significant effects on serotonin activity. But as the dose goes up, the drug's effects on brain activity level off. The precise numbers differ depending on the drug, but in general, SSRIs all seem to follow this pattern, Horowitz explains. "When you get above a certain dosage, every extra milligram of the medication does less and less to affect the brain," he says. "The practical

"OUR TASK AS PSYCHOLOGISTS IS TO FACILITATE THE PATIENT MAKING INFORMED DECISIONS BASED ON THEIR VALUES AND GOALS, AND TO FACILITATE THEM IN BEING THEIR OWN ADVOCATES."

JOHN MCQUAID, PhD, CHAIR OF THE APA DEPRESSION GUIDELINE DEVELOPMENT PANEL

AARON AMAT/GETTY IMAGES

implication is that when you stop the medicine, you need to reduce it more slowly at lower doses."

In other words, cutting a 2 mg dose to 1 mg might have a bigger effect on brain chemistry than dropping a 20 mg dose down to 10 mg. If people go down too quickly, they may experience withdrawal effects—especially at lower doses, Horowitz says. "And if a doctor is not well versed in withdrawal symptoms, he or she might conclude the underlying illness is back and put the patient back on the drug, when in reality, that patient may just need to come off the drug more slowly."

TOO MUCH SEROTONIN?

Questions about antidepressant withdrawal are complicated by the fact that scientists still aren't entirely sure how SSRIs and SNRIs work. The drugs block the reabsorption of the neurotransmitter into the neurons, raising the amount of serotonin circulating in the brain. But it's not clear how or why that might affect depression symptoms.

What's more, altering serotonin levels may have unintended consequences, says Jay Amsterdam, MD, a psychopharmacologist and emeritus professor of psychiatry at the University of Pennsylvania who was involved in clinical trials of many of the first-generation SSRIs. "There are a lot of biochemical mechanisms in the body to keep our neurotransmitters stable," he says. "Taking an SSRI perturbs that system." Withdrawal symptoms might actually be the result of the body struggling to recover its natural serotonin balance, he adds, "desperately trying to get things back to normal."

CRIB SHEET

7 WAYS TO HELP PATIENTS DISCONTINUE ANTIDEPRESSANTS

1. **Stay current** on the research so you can speak knowledgeably about medication-related questions and concerns.
2. **Help patients clarify** their goals for stopping medications.
3. **Help patients track** and measure withdrawal symptoms and any related mood or behavior changes.
4. **Help patients recognize** signs and symptoms of returning depression or anxiety.
5. **Encourage patients** to self-advocate and share their concerns with their prescribers.
6. **Consult** with prescribers, with patient consent, to coordinate patient care.
7. **Provide psychological therapies** to help patients manage specific withdrawal symptoms, such as fatigue, insomnia or mood changes.

FURTHER READING

Guidance for Psychological Therapists: Enabling Conversations With Clients Taking or Withdrawing From Prescribed Psychiatric Drugs
Guy, A., et al. (Eds.) APPG for Prescribed Drug Dependence, 2019

NICE Updates Antidepressant Guidelines to Reflect Severity and Length of Withdrawal Symptoms
Iacobucci, G. *The BMJ,* 2019

Tapering of SSRI Treatment to Mitigate Withdrawal Symptoms
Horowitz, M.A., & Taylor, D. *The Lancet Psychiatry,* 2019

Recent Developments in the Treatment of Depression
Hollon, S.D., et al. *Behavior Therapy* 2019

Some of his own research findings support the notion that SSRIs disrupt the natural serotonin system in negative ways, Amsterdam says. He and his colleagues found that patients who were treated with antidepressants for major depressive disorder were more likely to relapse after treatment, while those treated with cognitive therapy were not. And the greater the number of times a patient had taken an antidepressant, the lower their likelihood of achieving remission (Leykin, Y., *Journal of Consulting and Clinical Psychology*, Vol. 75, No. 2, 2007). "With each prior exposure to antidepressants, the likelihood of their getting into remission decreased by 25%," Amsterdam says. In a more recent paper, he found similar results in patients who had taken antidepressants for bipolar depression (*Journal of Clinical Psychopharmacology*, Vol. 39, No. 4, 2019). "These drugs are perturbing the [serotonin] system in some way that goes far beyond the elimination half-life of the drug," he says.

LONG-TERM ANTIDEPRESSANT USE

Despite open questions about antidepressants, Read says, "these drugs do help some people." Depression is a debilitating illness, and there is evidence that the medications can relieve major depressive disorder. A systematic review of 522 trials showed that each of the 21 antidepressants tested was more effective than placebo (Cipriani, A., *The Lancet,* Vol. 391, No. 10128, 2018). But another analysis, of 131 placebo-controlled



More than two-thirds of people who are on antidepressants have been taking the medications for at least two years.

RIDOFRANZ/GETTY IMAGES

trials of antidepressants, concluded that the clinical significance of the medications was questionable, and may not outweigh the negative effects (Jakobsen, J.C., *BMC Psychiatry*, Vol. 17, No. 58, 2017).

Antidepressants may be more effective when combined with psychotherapy. Steven Hollon, PhD, a professor of psychology at Vanderbilt University, and colleagues have found, for example, antidepressant medication combined with cognitive-behavioral therapy (CBT) was more beneficial than medication alone for people with severe, nonchronic depression (*JAMA Psychiatry*, Vol. 71, No. 10, 2014). (The APA depression guideline panel recommends medication, psychotherapy or the combination of medication and CBT or interpersonal therapy as first-line treatments for adults with major depressive disorder.)

But as more research finds people developing progressive resistance to antidepressants, Hollon says, experts might want to consider whether psychotherapy alone is the more prudent first-line option. "It could be that the medications end up setting you up for relapse down the line," he says. Still, he adds, it's probable that some patients are more likely than others to benefit from antidepressant medication. Psychologist Robert DeRubeis, PhD, at the University of Pennsylvania, and colleagues developed a computer model that could predict which patients were more likely to respond to drugs versus psychotherapy based on five variables: marital status, employment status, life events, comorbid personality disorder and prior medication trials. The results provide some guidance for individualizing the approach to depression treatment (*PLOS ONE*, Vol. 9, No. 1, 2014).

Meanwhile, patients who benefit from antidepressants may not need to stay on them long term. Some may want to quit because of side effects such as loss of sexual desire or decreased arousal. In other cases, their prescribers may recommend they stop taking the medications. The American Psychiatric Association guidelines, for example, indicate that patients should continue the drugs for four to nine months after treatment for the acute phase of major depression before tapering to discontinuation, and that only those with chronic or recurrent depression should consider continuing the drugs to prevent relapse. Yet the most recent data from the National Center for Health Statistics show that more than two-thirds of people on antidepressants in the United States have been taking them for at least two years, while a quarter have been on them for more than 10.

Many may not have ever discussed coming off the drugs. In a survey of antidepressant users in the United Kingdom, Read and colleagues found 65% had never discussed stopping the medications with their prescriber (*Addictive Behaviors,* Vol. 88, No. 1, 2019). One study of patients in Scotland who had taken the drugs for at least two years found the longer they'd been on them, the less likely prescribers were to adequately monitor a patient to review whether they were taking the right dose, or if they should continue the medication at all (Sinclair, J., *Family Practice,* Vol. 31, No. 4, 2014).

Others might be afraid to quit, or may experience withdrawal effects that make it hard to do so. In a small randomized trial, researchers in the Netherlands studied 146

KEY POINTS

1. **Research suggests antidepressant withdrawal effects might be more severe and longer lasting for some patients than was previously recognized.**
2. **Antidepressant withdrawal effects can include headaches, dizziness, fatigue, insomnia, irritability, aggression, anxiety, panic attacks, mood changes and sensations known as "brain zaps."**
3. **Psychologists can support patients taking antidepressants in a variety of ways, including helping them to recognize, measure and manage withdrawal effects.**

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patients whose primary-care doctor had recommended that they discontinue taking antidepressants. Just 51% agreed to follow that advice. Of those who tried, only 6% were successful (Eveleigh, R., *BJGP Open*, Vol. 1, No. 4, 2018).

THE ROLE FOR PSYCHOLOGISTS

Psychologists have a duty to stay informed about the science of antidepressants, says John McQuaid, PhD, associate chief of staff for mental health at the San Francisco VA Health Care System and chair of the APA's depression guideline development panel. "It's important to understand what the options are for our patients, and to be informed as to the status of the literature," he says. "Our task as psychologists is to facilitate the patient making informed decisions based on their values and goals, and to facilitate them in being their own advocates."

Psychologists can also help clients monitor potential side effects or withdrawal symptoms when they begin or discontinue a medication, he adds. "We can help to track symptoms and help clients identify their own experiences so they can determine whether they need to work with their prescriber to make changes."

Psychologists can also support patients experiencing withdrawal symptoms, Horowitz adds. "It can be a very difficult process for people," he notes. "[They] have to be mindful to say, 'I'm having all these symptoms, but I've made a decision to persevere through them.' Supportive psychotherapy can help people through that process."

Psychotherapists can support patients by helping them clarify their goals for discontinuing medication and focus on long-term objectives when side effects are difficult in the short term. They can also help patients develop specific strategies for managing difficult side effects, whether that's CBT for dealing with insomnia or interpersonal therapy when withdrawal-related mood changes interfere with a person's relationships, Read says. In some cases, he adds, psychotherapists might confer directly with prescribers to make sure all of the providers are on the same page.

Since most psychologists do not have prescription privileges, they can be reluctant to engage in conversations about medications with patients, Read adds. But as integrated care becomes more prevalent, it's increasingly common that psychologists are collaborating with primary-care doctors and other prescribers, and it's important to understand how medication fits into the big picture. "Antidepressants are an issue our patients are dealing with, and we all have a responsibility to be informed and involved," Read says. ■

Career

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



HOW TO REVITALIZE YOUR TEACHING

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Tips to Get Started as a Journal Editor PAGE 74

Connecting Your Patients to Useful Apps PAGE 78

10 WAYS TO MAINTAIN YOUR VITALITY IN TEACHING

Seek out connections, switch up your material and find the meaning in your lessons to sustain your passion in the classroom

BY STEPHANIE PAPPAS

Almost everyone can name a teacher who inspired them, or a class that opened up a new horizon. But how do you become that teacher? More to the point, how do you continue to be that teacher semester after semester after semester?

Maintaining your enthusiasm the 14th time you explain Piaget's stages of development to a room full of sleepy Psychology 101 students can be a challenge. And it's not always easy to keep up your energy in the classroom when a pile of administrative tasks is sitting on your office desk.

But veteran educators say it is possible to remain vital as a teacher for years or decades. The key is to never let yourself fall into a rut, says Richard Miller, PhD, a professor of psychology at Texas A&M University–Kingsville and the current president of APA's Div. 2 (Society for the Teaching of Psychology). "Teaching the same material over and over may be the biggest hurdle to get around," Miller says.

Fortunately, there are many ways to keep teaching fresh, both for yourself and for your students. The *Monitor* picked the brains of psychology educators who live and breathe teaching for tips, inspiration and resources. Here's what they had to say.

1 KEEP CHANGING Prepping for a course is a lot of work, and it can be tempting to reuse a syllabus semester after semester. Don't. Teaching the same material in the same way is one of the biggest barriers to staying engaged, says Miller. "Faculty often look at developing a new course as something that is a lot of work and not a lot of reward. But the reward is intrinsic," he says. "If you're teaching the same class every semester, that's tougher."

Even when you're teaching the same course again, switching up the material can be energizing, says Jane Halonen, PhD, a professor of psychology at the University of West Florida. These changes can range from an intensive overhaul (she recommends changing to a new textbook every three years or so) to a brief rejiggering of material (changing up slides, thinking up new assignments). Dana S. Dunn, PhD, a professor of psychology at Moravian College, teaches from the same textbook in different semesters, but he swaps out two or three chapters for every new course.

Bringing real-world issues into the classroom helps students understand how psychological science can inform big social issues like climate change and political elections.

Refreshing the course material needn't take a lot of time, says Mary Kite, PhD, a professor of social psychology at Ball State University. "For example, in the *Monitor* there are a lot of little study descriptions" in the "In Brief" research section of each issue, Kite says. "Just going through those and seeing something relevant to your course and bringing that one piece of information in can help you feel more current."

2 GIVE ACTIVE ASSIGNMENTS Grading can be a slog, so keep up your enthusiasm by creating assignments that will be as interesting to grade as they are to complete. "I try to avoid giving students assignments I think would bore me," says Bernard Beins, PhD, a professor of psychology at Ithaca College in New York. "If it would bore me, it will probably bore them, and grading papers by students who are not interested in the topic can be very painful."

Successful assignments tend to allow students to bring in their own opinions, creativity and experiences. In his research methods courses, Beins assigns "reaction papers" to students that ask them to respond to and



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critique specific research studies. Miller asks students to choose topics that interest them and then turns those topics into researchable questions, which both keeps the students interested and challenges him with novel material. "It's always new," he says. "You never know in a semester what you're going to be doing."

Service learning can also provide opportunities for intriguing out-of-class work. Community organizations have different needs in different years, Miller says, and working in the community can be very rewarding for students and instructors alike. Students in a developmental psychology class might volunteer with children or older adults, then use information from that experience to write a research paper on some facet of life span development. A research methods course might provide an opportunity for the class to set up a survey or evaluate an intervention for a community organization.

3 DO DULL TASKS FIRST All the nonteaching duties of teaching can be exhausting and drain your enthusiasm if you're not careful. When the realities of the modern-day university bring you time-consuming administrative tasks, tackle them right away, Halonen says. "When those things come across my desk, I confess, I swear at them, and then I do them," she says.

The faster you get the administrative work done, the less stressful it is, Miller agrees. It's also helpful to delegate where you can, he says.

4 FORGE CONNECTIONS WITH STUDENTS The longer you teach, the further removed you become from the student experience, Halonen says. It's important to make the student-teacher relationship a give-and-take one—and to realize when your pop culture references aren't resonating. "I put up a slide that had Monty Python on it, and none of my

students knew who Monty Python was," she says. "That isn't part of students' popular culture."

Learning about student culture can be its own reward, Halonen says. Her students introduced her to the singer Lizzo, and the music is "fabulous," she says. "It's about being able to stay open to what students can teach you."

Getting to know students in contexts outside the classroom can also be rewarding. Miller recommends that if faculty have the opportunity to lead a study abroad trip, they should take it. Traveling with students can help forge connections that would otherwise be difficult to create, he says.

5 MAKE LESSONS ACCESSIBLE When students are enthusiastic and engaged, it's easier to be enthusiastic and engaged as an instructor. Making sure methods and class content are resonating can be energizing. "When I finish a course, I look over my syllabus and notes I make to myself about what went well and what didn't," says Dunn. Assigning shorter bursts of reading and writing tends to engage students who have been raised on social media, he says. APA has developed a digital textbook alternative called PsycLearn that facilitates web-based learning activities as a potential complement to readings, papers and lectures. Information is available at digitallearning.apa.org/psyc-learn.

Reducing the use of PowerPoint, or at least excising text-heavy slides, can also keep students more engaged during lectures, says Kite. There are many free graphics and short videos or podcasts illustrating psychological concepts available online. "You can just feel the energy in the room go up when you put up something that's not text," she says.

FURTHER READING

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Chopik, W.J., et al.
Teaching of Psychology
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Halonen, J.S., & Dunn, D.S.
Teaching of Psychology
2018

Reimagining the First Year Experience
[Special issue]
Journal of the Scholarship of Teaching and Learning
2019



Forging connections with students outside the classroom and learning their cultural references can help make your teaching more relevant.

SKYNESHER/GETTY IMAGES

6 BRING IN REAL-WORLD ISSUES Another way to simultaneously pique student interest and keep course material current is to bring real-world issues into class discussions. "If you look at how the science we are producing makes a difference in the real world, that's interesting to students, and interesting to you," Miller says. Many big-picture news stories have a psychology angle, from the emotional impact of climate change, to the morals and values in a political election, to the evidence behind an educational initiative or a substance use policy.

"I try to bring research into the context of students' lives," Beins says. "That makes them happier and more willing to participate in class."

7 STAY CURRENT ON NEW STRATEGIES Doing your own homework is another way to keep your teaching energized and alive. Dunn recommends subscribing to a teaching journal, such as *Scholarship of Teaching and Learning in Psychology* or *Teaching of Psychology*, the Div. 2 journal. Kite recommends *The Oxford Handbook of Undergraduate Psychology Education*, published by Oxford University Press in 2015 and edited by Dunn. For example, Kite says, an essay in that book got her thinking more deeply about the ethical issues that occasionally arise in teaching, such as fairness and confidentiality.

"There are a lot of things in that volume or related teaching sources, just two or three changes that can really perk up a course," Kite says. "You don't have to start from scratch."

8 NETWORK AND COLLABORATE Another source of teaching inspiration can be found in peers and colleagues. Teaching conferences are

particularly energizing, says Halonen: "It's really hard to go to a teaching conference and not come out of it feeling like you've got new ideas you can implement right away."

If a teaching conference is out of reach, there are other ways to make connections. Psi Chi's Network for International Collaborative Exchange can facilitate collaborations between classes at different universities on undergraduate research projects. Sitting in on a different instructor's class in your own department is another way to get new ideas, says Kite.

Social media provides another easy way to connect with fellow educators, says Sue Frantz, MA, who teaches psychology at Highline College. Div. 2 has an active Facebook group that shares ideas, and psychology educators also talk shop on Twitter, Frantz says.

9 TEACH WHAT MATTERS MOST As of 2016–17, psychology was the fourth-most-popular undergraduate major in the United States, according to National Center for Education Statistics data. Many of those undergraduate psychology majors will go on to careers not directly in the psychology field. To keep students—and themselves—engaged, educators need to consider what they really want to impart about psychology, Frantz says. In her Psychology 101 classes, she has now dropped much of the material on the history of psychology and focuses instead on impactful research on topics like stress, coping and happiness.

"I'm representing the field to hundreds of people who are going to go out and live in the world, so what is it that I can tell them about this field that I love that is going to have an impact on them?" Frantz says. "For me as an instructor, what that means is there is great importance to what I am doing."

10 KNOW YOUR STRENGTHS Pedagogical methods come and go, and so do new technologies that might affect the way you teach. To weather the changes, know thyself, says Dunn. "I never have a problem trying out some new writing exercise," he says, "but when it comes to technology, I'm always leery" because of the chance that technical difficulties might waste valuable class time. Other instructors take to tech easily. Similarly, personality differences may dictate whether a teacher will shine as a lecturer, a discussion leader or by assigning active learning projects, Frantz says.

"Don't let anybody tell you that you have to teach a particular way," Frantz says. "You don't. Your enthusiasm for the topic is going to come through, and if you play to your strengths, the students are going to be right there with you." ■

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IDENTIFYING WAYS TO SOOTHE PAIN

The Cognitive and Affective Neuroscience Lab at Dartmouth College looks to brain imaging and machine learning to understand the psychological complexity of pain

BY STEPHANIE PAPPAS

What if psychological treatments for pain are more powerful than they're given credit for?

Tor Wager, PhD, a cognitive psychologist and head of Dartmouth College's Cognitive and Affective NeuroscienceLab (CANLab), thinks they maybe. Wager and his colleagues have found that people's experiences of pain are heavily influencedby their thoughts, beliefs and sociocultural contexts—a discovery that might not surprise your average psychologist. But what makes CANLab's work different is the researchers' use of cutting-edge neuroimaging and machine learning methods to ground these discoveries in the circuitry of the brain.

Take, for example, a recent study by Elizabeth Reynolds Losin, PhD, now an assistant professor of psychology at the University of Miami. As a CANLab postdoc, she became interested in the contradictions surrounding racial and ethnic differences in pain. In research and clinical settings, African Americans report more sensitivity to pain than other racial groups. And yet, African Americans' pain is notoriously undertreated, and research has found that medical professionals often believe that African Americans feel less pain than white patients.

Wager, Losin and their colleagues recruited 30 African Americans, 30 white non-Hispanic Americans and 30 Hispanic Americans to have brain scans with fMRI while being subjected to painful heat. As expected, the African American participants reported more pain for a given level of heat than the white or Hispanic participants.

The fMRI data allowed Losin and Wager to find out why. The African American participants' greater sensitivity to pain was correlated with increased perceptions of discrimination, as well as decreased trust in the experimenter (a white man). These feelings of discrimination and mistrust, in turn, were linked to higher activity in frontostriatal regions of the brain, activity that was also indicative of greater subjective ratings of pain (*Nature Human Behaviour,* online first publication, 2020).

"Pain is more threatening when it's given in the context where you don't feel as safe or if controlled by a person you don't trust," Wager says.

Understanding how complex psychological phenomena like trust can affect a basic process like pain is the linchpin of Wager's work in the CANLab, which relocated to Dartmouth from the University of Colorado Boulder (CU Boulder) in 2019.

Wager's goal is to better understand and provide new treatment options for chronic pain, which affects approximately 50 million American adults. For many, the real agony they feel is not associated with physical damage in the body, Wager says. To understand the actual sources of pain, he and his team are studying basic emotional processing, responses to aversive sounds and sights, sociocultural influences and the placebo effect. They're also studying pharmacological and psychological treatments.

"If we understand these things on a physiological level, if we could say, 'Absolutely there is nothing wrong with your back, but here's this circuit in your brain that is causing learned-fear avoidance that is amplifying your pain signals,' we could know how to really help individual patients get better," Wager says.

PLACEBO POWER

This focus on pain has personal resonance for Wager. He was raised in the Christian Science

RESEARCH FOCI

The Cognitive and Affective Neuroscience Lab is:

1. **Studying how complex psychological phenomena like trust, emotion and sociocultural influences can affect people's perception of pain**
2. **Using fMRI to find patterns of brain activation that can serve as biomarkers of pain**
3. **Working to understand and develop interventions for chronic pain**



HSYNCOBAN/GETTY IMAGES

tradition, a religion that holds that thoughts and belief are the source of all healing. Though he doesn't hew to those beliefs himself, he says he always found the idea of the power of belief to be fascinating. And pain is an ideal lens through which to study thoughts and beliefs, he says, because scientists know a great deal about the physiology of pain in the peripheral nervous system, such as the mechanics of pain receptors and basic nociception, but not as much about what is happening in the brain. "The neuroscience of pain above the neck is really a new field," he says.

Wager's first major contribution to that field was a seminal study on the placebo effect, which he completed as a graduate student at the University of Michigan. He and his colleagues applied small electrical shocks and heat to participants' skin while using fMRI to track brain activity. The researchers applied a cream to all the participants' skin prior to the painful stimuli, telling some of them that it was an inert lotion and others that it was a highly effective painkiller. The cream was a placebo, but patients who believed it to be a real painkiller reported less pain than control participants.

That pain relief was reflected in their brain activity: During the application of the painful stimulus, placebo-condition participants showed reductions in brain activity in pain-related brain structures such as the anterior cingulate cortex, the contralateral insula and the contralateral thalamus. The placebo also increased activity in the dorsolateral prefrontal cortex and orbitofrontal cortex during the anticipation phase of the experiment, when participants were steeling themselves for pain (*Science*, Vol. 303, No. 5661, 2004). Follow-up research found that placebo treatment increased the release of endogenous opioids during pain in the orbitofrontal cortex, the right amygdala and the right anterior cingulate cortex, all pain-related regions (*Proceedings of the National Academy of Sciences,* Vol. 104, No. 26, 2007). The researchers had shown how belief alone could alter fundamental organic processes in the brain.

Not all chronic pain has a physical cause. Dr. Tor Wager aims to better understand the brain circuitry that underlies pain and develop new treatments.

"It's really a pure manipulation of thought, belief and

context," Wager says of placebo treatments. "You manipulate psychology and then you get an effect on body outcomes and brain outcomes."

PINPOINTING PAIN IN THE BRAIN

But to better understand these processes, Wager and his team have had to develop an objective way to detect pain in the brain. As the placebo studies elegantly illustrate, pain is highly subjective. One person might give a stimulus a rating of 10 on the pain scale while another person would rate it as 5. And, more to the point, what someone rates as 10 on the pain scale on one day might feel like 5 to them on a better day. More rested, less stressed, more comfortable with the people you're with? You'll probably rate any given noxious stimulus as less painful.

To dig into the specific reasons that pain feels the way it feels to a particular person at a particular moment, Wager and his team are seeking to identify brain biomarkers for pain by using machine learning to find patterns of brain activation in fMRI data that signal pain. Machine learning can pick out patterns far too complex for human scientists alone to pluck from a large set of data, says Philip Kragel, PhD, a postdoctoral researcher in Wager's lab who is based at CU Boulder. The goal is to use these pain biomarkers in research to understand how pain processing works and to test interventions for pain.

In 2013, Wager and his colleagues published their first paper describing a successful pain biomarker, which they call the neurologic pain signature (*The New England Journal of Medicine,* Vol. 368, No. 15, 2013). This signal consists of a complicated pattern of activation across many brain regions associated with pain and sensation, including the secondary somatosensory cortex, the insula and the anterior cingulate cortex. The signal could discriminate between painful heat and nonpainful warmth with 93% sensitivity and specificity and between physical and social pain with 85% sensitivity and 73% specificity. Administration of an opioid painkiller caused the neurologic pain signal to subside.

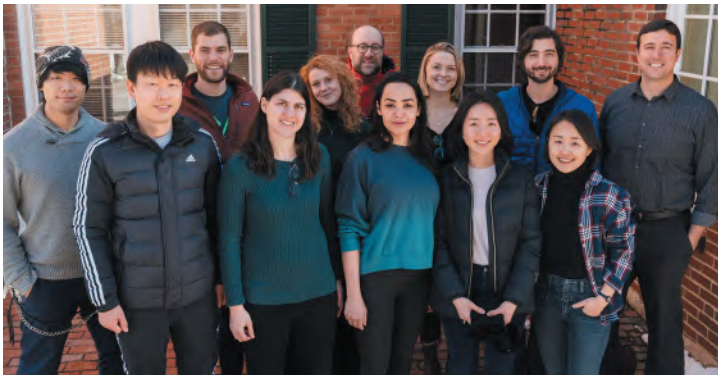
Much of the lab's work now uses this neurologic pain signal as a benchmark in research studies to understand its participants' painful experiences. The researchers are also continuing to use machine learning to try to expand their suite of biomarkers. Kragel's work in Boulder focuses on defining patterns of activation that mark particular emotional experiences. Marta Čeko, PhD, a postdoctoral researcher also based at CU Boulder, is on the hunt for brain activity that is common to aversive experiences more generally, whether pain, unpleasant sounds or unpleasant visual stimuli. The findings may translate to a deeper understanding of emotional experiences as well.

"Anxiety, depression, pain, all of those have some kind of dysregulation in affective processing, which includes aversive processing," Čeko says. "If there are circuits that are common to those three, we can find treatments that target the common denominator."

THE PSYCHOLOGICAL SIDE OF PAIN

The neurologic pain signature has opened up a cascade of new investigations into the intersections of pain, emotions, expectations and experience. Wager and his co-authors have found, for example, that when people expect a lot of pain, their neural pain responses to a given painful stimulus are heightened, leading to a greater sensation of pain and even higher expectations of future pain—an ominous positive feedback loop (*Nature Human Behaviour,* Vol. 2, No. 11, 2018).

Many lab members are



ELI BURAKIAN, DARTMOUTH COLLEGE

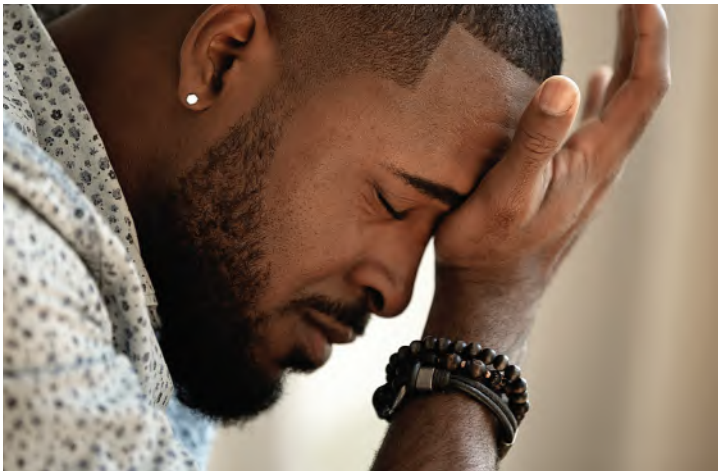
Dr. Tor Wager (far right) and members of the CANLab.

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Neuroscience Letters
2019



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African Americans' pain is notoriously undertreated, research finds.

particularly motivated to tackle chronic pain, which is defined as pain that lasts for more than three months and which may or may not have a detectable physical cause. Anxiety and depression are risk factors for chronic pain, hinting that aversive learning circuits in the brain contribute to the problem. Sociocultural factors may matter, too. In the study of pain differences by race and ethnicity led by Losin, the patterns of brain activity seen in the pain-sensitive African American participants were similar to the patterns seen in learned pain avoidance and in the brains of patients with chronic pain (*Nature Neuroscience,* Vol. 17, No. 11, 2014). Adverse life experiences and chronic stress are known to be linked to chronic pain, Losin says.

"Perhaps here, discrimination as a chronic stressor is causing these brain regions to become responsive to pain in a similar way as they are to chronic pain patients," she says.

So far, the neurologic pain signature is used alongside a painful stimulus to quantify the intensity of the pain a person perceives from that physical sensation. Wager and his team are now working to identify patterns of responsiveness that can quantify chronic pain that may not have an obvious physical trigger. "It's going to be challenging," he says.

Meanwhile, he and his colleagues are already working on testing interventions for chronic pain. In a study being prepared for peer review, participants who had been in pain for an average of 10 years participated in a randomized clinical trial with two treatments: an open-label placebo injection into the back, with participants' full knowledge that they were receiving a placebo, or four weeks of twice-weekly sessions of a novel psychological treatment developed and delivered by Wager's collaborator, Los Angeles psychotherapist Alan Gordon, LCSW, focused on reducing fear and anxiety around pain. The goal is to test the novel psychological treatment for pain as well as whether placebos that patients know are placebos reduce pain over long time periods.

So far, participants in the placebo group have shown a significant reduction compared with a waitlist group, Wager says. This improvement was modest but was maintained at a three-month follow-up. Wager has been documenting the participants' subjective responses to the treatment as well as their neurological changes, and results from the psychotherapy treatment are forthcoming.

One possible limitation of many current psychological approaches to pain is that patients are told that the treatments won't change the pain, only help them cope with it. That may be untrue and ultimately counterproductive, given the results seen in the CANLab so far, Wager says. "If you're delivering a great psychological treatment for pain, based on acceptance but with a negative expectation, you're cutting it off at the knees," he says.

But to truthfully offer patients hope that psychological treatment won't just help them cope with pain but actually erase the agony, Wager and his team will need to be able to identify the patients who can benefit. That means understanding pain circuitry well enough to rule out people with serious bodily problems that are causing their pain.

"The real action here that is important for people is right at the intersection of this interplay between physiology and psychology," Wager says. "That's what we're studying." ■

● **"Lab Work"** illuminates the work of psychologists in research labs. To read previous installments, go to www.apa.org/monitor/digital and search for "Lab Work."

HOW TO BECOME A JOURNAL EDITOR

The psychology field is looking for fresh voices—why not add yours?

BY CHARLOTTE HUFF

Taking on an editing position at a journal enables you to influence discussions in your field, highlight promising research and perhaps boost your own visibility. But how can you best position yourself to be considered for such a role?

Sandra Mattar, PsyD, long held what she describes as a secret professional desire to become a journal editor. But Mattar, now the associate editor of *Psychological Trauma: Theory, Research, Practice, and Policy*, didn't have a lot of role models. Born in Venezuela to Lebanese parents, she felt an editorship might be a steeper goal for her to achieve as a woman of color. "But I knew I had a lot to say that was a new voice, a different voice, and I knew it was not represented in the field of trauma psychology," says Mattar, an assistant professor of psychiatry at the Boston University School of Medicine.

So Mattar took steps to raise her profile in trauma psychology, including becoming one of the founding members of APA's Div. 56 (Trauma Psychology). Leonard Simms, PhD, a co-editor at *Personality and Mental Health*, agrees that early career scholars must look for opportunities to shine by presenting at conferences and volunteering as journal reviewers.

"It's all about visibility—the quality of your own scholarship, the quality of your own reviews," says Simms, an associate professor in the department of psychology at the University at Buffalo in New York.

An editorial role will allow you to contribute to scholarship, whether it's as an editor or by assuming a position on the editorial board, where you can suggest subjects for special issues, recruit promising authors and help review manuscripts. Here are some steps that Mattar, Simms and others suggest to better prepare yourself for an editorial position.

1 **BOOST YOUR RESEARCH EXPERTISE** To develop the multifaceted expertise required to become a journal editor, you must be proficient in your subject



matter and work to address any gaps in your knowledge, says Beverly Vandiver, PhD, editor in chief of the *Journal of Black Psychology*.

For instance, if you're uncomfortable with statistics or methodology, dig deeper to truly understand those areas, she says. Even though Vandiver took numerous statistics courses as a graduate student, she says they didn't sufficiently prepare her for editorial work. As an early career psychologist, she regularly consulted with experts in methodologies and statistics, whether it was meeting up for coffee or calling them to flesh out her understanding, and then she applied what she learned to her own research or editorial reviews. "I tell people that you should approach hard and develop that skill set that you want so badly," says Vandiver, a professor in the department of counselor education and counseling psychology at Western Michigan University in Kalamazoo. "If you really want to get to an editorial level, you want to embrace knowing your subject matter and you want to be thorough, because it also increases your own confidence."

2 LEARN BY REVIEWING OTHERS To elevate your credentials and research prowess, volunteer as a reviewer for journals in your field, says Vandiver, echoing a frequently stated piece of advice. Vandiver believes that the caliber of her reviews helped set her apart earlier in her career.

"I didn't just write about one area or aspect," she says. "I reviewed a manuscript from top to bottom. I would give very specific feedback regarding what I thought was a concern or a problem," she says, along with being respectful to the authors involved.

It's never too early to start, says Mattar, who encourages her doctoral students to become reviewers or team up with a faculty member to be a co-reviewer. "First, it destigmatizes the process of what it means to publish something," she says. "As a reviewer, you are on the other side of the journal. That empowers you."

Additionally, Mattar notes that as a reviewer you learn from the comments submitted by the other reviewers and gain the opportunity to interact with a journal's editors.

As a first step, consider joining an editorial board in your area of focus.

3 GET OUT OF YOUR OFFICE When deciding which conferences to attend, be sure to add some smaller ones to the mix that align with your research focus, says Kerry Kawakami, PhD, editor of the *Journal of Personality and Social Psychology: Interpersonal Relations and Group Processes*. That way you'll get to know leaders in your field, she says.

And don't hang back once you're there—speak up when you have a question or a point that you want to make, says Kawakami, a professor in the department of psychology at

CARLOS CASTILLA/GETTY IMAGES



York University in Toronto. Another strategy: Volunteer for some of the myriad jobs that go into organizing such an event, whether it's joining the symposium committee or judging awards.

"It's making yourself accessible, right?" Kawakami says. "Let people know who you are. They see your talks at conferences, they see you asking questions."

At its heart, landing an editor's or associate editor's spot requires interpersonal skills along with expertise, Vandiver says. "There's one level that's about competency," she says. "But there's another about whether you're well known and you're well liked."

4 CULTIVATE MENTORS Kawakami says she benefited earlier in her career from the support of a talented mentor, Jack Dovidio, PhD. She credits the Yale University psychologist with promoting her research and encouraging her to pursue editorial roles. "It's especially important for visible minorities and women to have people who support them and encourage them," she says.

Kawakami initially got to know Dovidio through research collaborations. Ideally, mentors emerge organically through interactions within your department or by teaming up with other psychologists for studies, she says. Another strategy would be to attend mentorship gatherings at specific conferences. Kawakami notes that the annual meeting for the Society for Personality and Social Psychology typically has mentorship lunches to which you can invite researchers in your field. (For more on mentoring see the *Monitor*'s mentorship series in the January–April 2019 issues).

To develop the multifaceted expertise required to become a journal editor, you must be proficient in your subject matter and work to address any gaps in your knowledge.

5 TRY YOUR HAND AT EDITING As a prequel to an editorship, strive to join an editorial board in your area of focus, Simms suggests. While there might only be a handful of editor spots, an editorial board can include a dozen or more people, he says. Another idea: propose to be a guest editor for a special section or a special issue. While special sections are sometimes developed internally, Simms says, "oftentimes it's the people outside the journal who propose it or are commissioned to do it in some way."

Simms, who is also an associate editor at *Psychological Assessment*, says that he proposed a special issue on the current state of psychological assessment practices for that journal. Partway through the process to develop and co-guest edit that issue, Simms was asked to join the journal as an associate editor.

"I don't know if my guest editorship played into that," he says, noting that he already knew the journal's editor through conferences and other professional circles. But it didn't hurt to be on his radar, he says.

6 PUSH THROUGH PERCEPTION BARRIERS Over time, Mattar says that she's been able to push past her own worries that her contributions to the research discourse won't be

GET TRAINING

EDITORIAL MENTORSHIPS

Some journals have established a **fellowship track** to assist doctoral students or early career psychologists who want to learn more about the editorial review process. A few are posted on the APA website at www.apa.org/pubs/journals/resources/reviewer-mentorship-program.

Specifics will vary by journal, including who is eligible. But **don't be hesitant to reach out** to a journal editor for guidance, says Jennifer Schurman, PhD, editor of *Clinical Practice in Pediatric Psychology*, which offers a mentoring program for junior reviewers. Sometimes early career faculty will have mentors at their institution but not in their area of research focus, Schurman says. So they will reach out to her to be paired up with a more senior reviewer on a manuscript before striking out on their own, she says.



FIZKES/GETTY IMAGES

as well perceived once she speaks up in her Venezuelan accent. She still recalls the days as a doctoral student when a point that she made in class would be largely overlooked, while a very similar comment by another student would be commended.

Don't let whatever stereotypical perceptions are layered onto your race, culture or other background sabotage your own behavior or ambition, Mattar stresses. "It's an active effort that you need to make," she says. "Just put that aside and just be yourself and say what you need to say. Make sure that if you have something to say that your voice is represented."

Vandiver says her own sensitivity to criticism when she was younger might have held her back at first. To become an editor, you need to develop a degree of what she jokingly describes as "gator skin." Editors can get critiqued from all corners, she says, from colleagues to authors whose work has been rejected.

7 DON'T UNDERESTIMATE THE TIME COMMITMENT

When you're approached about an editing role, find out more about the workload involved, including how many papers you'll be asked to handle, Simms says. One of the challenges is not only the time commitment, he says, but also the pressure to move manuscripts along, with tasks popping up amid academic and other work commitments.

"An article might come in today that I wasn't expecting and I have to do something with it," Simms says. "I could have one waiting in my email box right now."

If you're worried that an editorial board role would add too much to your workload, ask your university if it could provide support.

As an editor, Kawakami has committed to developing a roster of associate editors that's at least half female, along with recruiting as many visible minorities as she can. It can be more difficult for women and individuals of color to accept an editing role, as they might have already been approached to add their diverse perspective to other roles, such as sitting on committees, and thus feel overcommitted, she says.

To broaden the diversity of the editorial bench, there are some accommodations that publications can make, or that potential editors can request, Kawakami says, such as reducing the number of manuscripts that must be reviewed each year. Also, keep in mind that an editorial position can burnish the reputation of the university or college where that psychologist works, she points out. Perhaps that institution can be approached to see if it would reduce the editor's course load or provide other types of support, such as funding a research assistant.

Despite the time and mental energy involved, Kawakami encourages interested psychologists to pursue editorial opportunities, saying that she's gotten back even more than she's put in.

"Building a network with other people that I really respect—for example, my associate editors—was worth it," she says. "Getting to know them, reading their evaluations of research, I learned a lot. And you get to support young researchers by working with them on their manuscripts to try to produce the best publication possible." ■

USING APPS WITH YOUR PATIENTS

Apps can be a useful adjunct to therapy. Here's how to make the most of them.

BY REBECCA A. CLAY

When psychologist Charmain F. Jackman, PhD, has trouble sleeping, she reaches for her phone, clicks on the Stop, Breathe & Think app and does a body scan or a breathing exercise until she feels sleepy. She also uses the kids' version of the mindfulness app with her own children. She has become so gung-ho about the app that she now recommends it to patients in her Boston-area private practice and to the high school students at the Boston Arts Academy, where she is dean of health and wellness.

"The fact that I've used it many times for myself is why I feel comfortable recommending it to clients," says Jackman.

Psychologists are using apps with patients in many ways. Apps can be assigned as a form of homework to help a patient practice new skills and stay motivated between sessions. They can be used to help patients with co-occurring conditions, such as when a therapist recommends an insomnia app for a patient with depression. They can track a patient's moods or other symptoms. They can even provide an easily accessible alternative to "booster" sessions for patients who have finished therapy.

There are now more than 10,000 mental health apps available to consumers. But if you haven't used an app yourself, how do you know which ones to recommend to your patients? And how can you incorporate apps into your practice most effectively? Jackman and other psychologists offer this advice:

■ **Get recommendations from reliable sources.** When you go to an app store, "it feels like practically every app has four stars," says Stephen Schueller, PhD, executive director of PsyberGuide, A Project of One Mind, a nonprofit initiative that offers accurate, nonbiased information about mental health apps. Resources like PsyberGuide and the APA Services, Inc. "Let's Get Technical" column can help you narrow your options down. Listen for recommendations at workshops and other trainings. And ask your colleagues what they're recommending to their patients.

■ **Look for the research base.** Try to find apps with some research to back them up, although that may not always be possible. "There is quite a bit of research that shows that these tools can be efficacious as both stand-alone products as well as adjuncts," says Schueller. But when it comes to a specific app, finding evidence can be a challenge. "Research suggests that somewhere between 3% and 5% have an evidence base behind them," says Schueller. Check the app store or product website to see if an app cites a specific study or was designed by a psychologist, he suggests.

■ **Protect patient privacy.** Look at how any app you recommend saves user data or whether it possibly even sells that data, says C. Vaile Wright, PhD, director of research and special projects at APA. Even when apps might not be imperiling users' health information, she says, they could still be gathering personally identifying information such as names or email addresses. Psychologists and patients should read the fine print on app privacy policies, Wright emphasizes. And they'll need to keep at it, as terms of service and privacy policies often change. You'll need to guide patients through the potential data security risks and explore whether they're comfortable with those risks. You can also suggest ways of mitigating the risks, such as by telling patients not to post photos or to just use initials or even fake usernames.

■ **Ensure a good fit for your practice.** Make sure an app aligns conceptually with your theoretical orientation, for instance. "Just because an app says it uses cognitive-behavioral therapy doesn't mean it does,"

RESOURCES

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Talking about patients' experience with an app can provide a jumping-off point for broader discussions in therapy.

Schueller points out. "App developers know this is a buzzword that makes an app seem more evidence-based."

■ **Check availability.** Make sure the app is offered on both Android and iOS platforms. And try to find apps that are free or low-cost, such as the free options available to all through the U.S. Department of Veterans Affairs at the VA App Store.

■ **Get informed consent.** For JoAnna Romero Cartaya, PhD, of the Cartaya Clinic in Humanistic and Behavioral Psychology in Iowa City, that means giving patients a handout that includes the apps she recommends plus general issues to consider when using apps. If the recommended apps will transmit patients' data to her, she gives them a separate handout that explains what information she'll have access to and offers tips on how to protect their information.

■ **Teach your patients well.** During a session, download the app and walk your patient through how to use it. "Doing it during the session takes away some of the potential barriers, like the patient getting home and forgetting what you said," says Jackman. She also helps patients come up with app-related goals, such as using a meditation app three times a week for five minutes. "We really make it low stakes," she says, "while also talking about how it could be helpful." She also helps patients to solve problems even before they start using an app. "We talk about what might get in the way of using the app and when they see themselves using it," she says. "I try to prime them by envisioning how they would use it."

■ **Discuss the app in therapy.** Talking about patients' experiences with an app can provide a jumping-off point for broader discussions. "We talk not only about how they used the apps, but how they begin to apply those skills to daily life," says Cartaya. For a patient with social anxiety, for example, an app can offer practice in taking small risks—such as engaging in an online community—that can then translate into real-life settings.

■ **Monitor patients' progress.** Jackman periodically checks in with patients about whether they're finding an app helpful and helps them come up with plans for overcoming any challenges they encounter. For apps that track mood or other symptoms, she invites patients to bring the information to sessions and let her review trends. Other psychologists take advantage of the real-time monitoring and communication tools that some of the pricier apps offer via secure messaging.

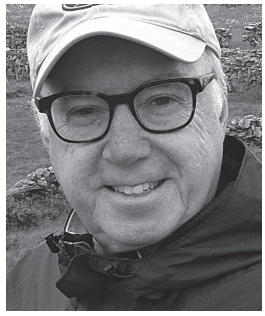
■ **Know when to stop.** The vast majority of Cartaya's patients like the apps they're using and find them motivating, she says. But for those who don't want to start using apps or who want to stop—whether because of privacy fears or tech concerns or because they just don't feel a particular app is helping—that's OK, says Cartaya. "I tell them there are things we can do in therapy that are just like an app, just not as beautiful visually as what an app can do," she says. "That way, people have a choice and aren't feeling like this is the only option or their treatment will be limited if they don't use this technology." ■


Parham


Maslach


Tottenham


Oleson


McAndrew

PSYCHOLOGISTS IN THE NEWS

The city of Los Angeles has presented an African American History Month Hall of Fame Award for Education to **Thomas A. Parham, PhD.** Parham grew up in Los Angeles and has served as the president of California State University, Dominguez Hills, since 2018. Before that, he spent 38 years in academic, clinical and administrative roles at both the University of California, Irvine, and the University of Pennsylvania. Throughout his career, Parham has also been involved with social advocacy, mentoring and other youth and community empowerment efforts throughout the Los Angeles and Orange County areas.

The National Academy of Sciences has recognized five psychologists for their extraordinary accomplishments in science. **Richard N. Aslin, PhD,** of Haskins Laboratories and Yale University, won an Atkinson Prize in Psychological and Cognitive Sciences for his research on vision and speech perception in infants; **Susan Elizabeth Carey, PhD,** of Harvard University, also won an Atkinson Prize in Psychological and Cognitive Sciences for her research on the development of abstract ideas in adults and children; **Christina Maslach, PhD,** of the University of California, Berkeley, won the Award for Scientific Reviewing for her research on job burnout and employee well-being; **Michael C. Frank, PhD,** of Stanford University, won a Troland Research Award for his work on children's language; and **Nim Tottenham, PhD,** of Columbia University, also won a Troland Research Award for her work on brain development underlying emotional behavior.

Reed College in Portland, Oregon, has named social psychologist **Kathryn Oleson, PhD,** as its new dean of faculty starting July 1. Oleson has been a member of the college's psychology faculty since 1995. Her research focuses on making higher-education classrooms more inclusive and effective so that all students thrive. Oleson is also the inaugural director of Reed's Center for Teaching and Learning, which helps faculty improve and develop their teaching and strengthen interpersonal dynamics in their classrooms.

Frank McAndrew, PhD, has won an Exceptional Achievement Award from Knox College in Galesburg, Illinois. McAndrew, who is the Cornelia H. Dudley Professor of Psychology, was honored for his work with the media to showcase his research on evolutionary psychology and for his exceptional service to the school. He has chaired the college's institutional review board and psychology department, coached the wrestling team and is the founder of the school's environmental studies program.

Glendale Elementary School in Madison, Wisconsin, is being renamed in honor of **Virginia Henderson, PhD,** a school psychologist who died in April 2019. Henderson worked as the school's psychologist from 1976 to 1991, then as a diversity consultant for the Madison Metropolitan School District until she retired in 1997. She was known throughout Madison for her philanthropy and volunteer work and she founded the city's African American Ethnic Academy, a program for children that emphasizes African American heritage and STEM activities.

The governor general of Canada, Julie Payette, has invested **Peter Suedfeld, PhD,** as an Officer in the Order of Canada, a distinction for Canadians who have made outstanding contributions to the country in service or innovation. Suedfeld, a professor emeritus of psychology at the University of British Columbia, is being honored for his more than five decades of research on how people respond to extreme or stressful environments, such as space travel or work at polar research stations. ■

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CALIFORNIA

VISITING ASSISTANT PROFESSOR POSITION IN PSYCHOLOGY: The Department of Psychology at the University of California, Riverside (UCR) invites applications for a one-year Visiting Assistant Professor position beginning July 1, 2020. Duties will include instruction of two courses in each of three quarters, at least one at the graduate level in the areas of cultural bases of human development, cognition, and quantitative methods, as well as mentoring undergraduate and graduate students, and participation in department activities. In addition, the successful candidate will give at least one campus presentation of their work and will continue with their research agenda. Candidates who apply by this date will receive full consideration. UCR is a world-class research university with an exceptionally diverse undergraduate student body (http://diversity.ucr.edu/). Its mission is explicitly linked to providing routes to educational success for underrepresented and first-generation college students. A commitment to this mission is a preferred qualification. A PhD in psychology or a related discipline is required at the time of the appointment. Priority will be given to candidates with experience and success in teaching psychology at the university level. Salary will be commensurate with qualifications and experience. **Review of applications will begin on May 1, 2020 and will continue until the position is filled.** Applications must include a cover letter, curriculum vitae, teaching statement, statements of research interests and contributions to diversity, sample syllabi, teaching evaluations, and three letters of recommendation. All application materials must be submitted by using the following link: https://aprecruit.ucr.edu/JPF01252. The University of California is an Equal Opportunity/Affirmative Action Employer.

FLORIDA

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PSYCHOLOGIST: Boston Children's Hospital Deaf and Hard of Hearing Program seeks a full-time attending psychologist, providing: clinical service including diagnostic assessments, consultation, short-term treatment, and participation in teaching/research opportunities. Successful applicants have clinical experience with infants, children, and adolescents who are deaf or hard of hearing (and their families). Competency in American Sign Language preferred. Graduation from APA/CPA-accredited internships/doctoral programs required, as is a valid Massachusetts license in psychology. Harvard Medical School academic appointment likely at the Instructor level. Letter of application and recent curriculum vitae should be sent to Courtney Kellogg at courtney.kellogg@childrens.harvard.edu or via post: Courtney Kellogg, Department of Psychiatry, Boston Children's Hospital, 300 Longwood Avenue, Mailstop 3022, Boston MA 02115. Boston Children's Hospital is an Affirmative Action/Equal Opportunity Employer. We place a strong emphasis on the values of equality and diversity.

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In addition to an application letter, enclose a curriculum vitae and arrange to have three letters of recommendation sent to the search committee. Send applications to: Search Committee, Attention: Sandra Maislen, Division Director, Division of Developmental Medicine, Fegan 10, Boston Children's Hospital, 300 Longwood Ave., Boston, MA 02115.

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BY TORI DEANGELIS



ALCOHOL-RELATED DEATHS ON THE RISE

Deaths related to alcohol use have more than doubled over the past two decades, according to an analysis of all U.S. death certificates issued between 1999 and 2017

72,558

Number of people in the United States who died from alcohol-related causes in 2017, compared with **35,914** in 1999.

31%

The percentage of alcohol-related deaths in 2017 caused by **liver disease.** Other causes included **overdoses** on alcohol alone or with other drugs (18%), alcohol-related **mental and behavioral disorders** (14%) and **motor vehicle accidents** (1.7%).

2.6%

The percentage of all deaths in the United States in 2017 in which an **alcohol-related cause** was noted as the underlying cause or one of multiple causes of death.

85%

The increase in alcohol-related deaths among **women** between 1999 and 2017, compared with a **35%** increase among **men** over that same time period.

Source: White, A., et al. (2020). Using death certificates to explore changes in alcohol-related mortality in the United States, 1999–2017. *Alcoholism: Clinical & Experimental Research, 44*(1), 178–187. Available at https://doi.org/10.1111/acer.14239.

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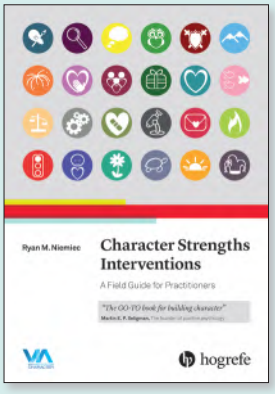
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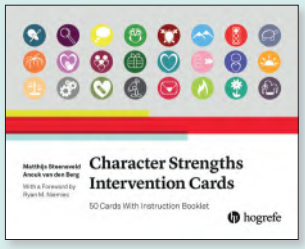
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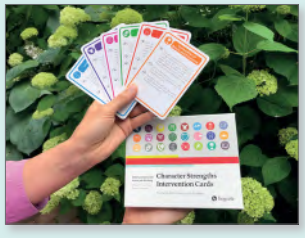
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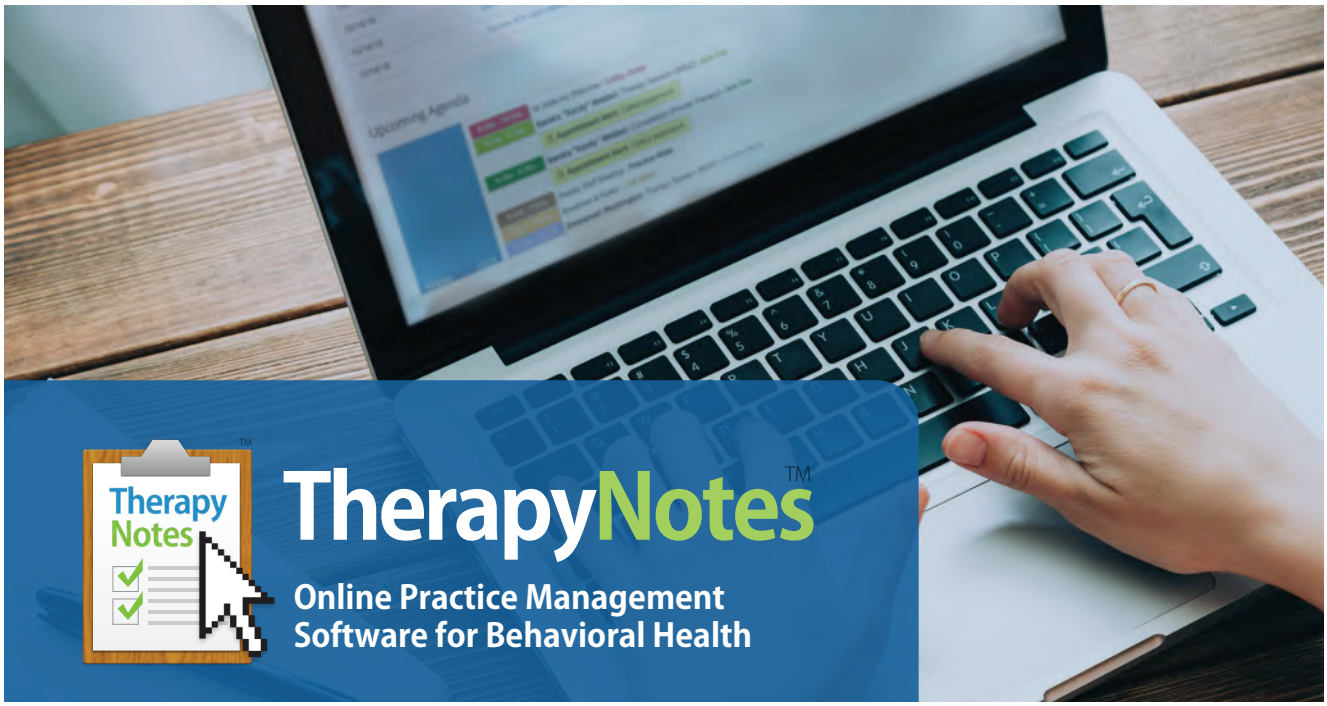


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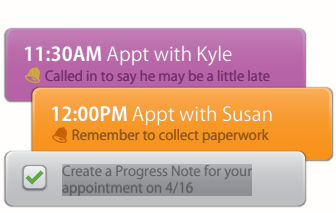
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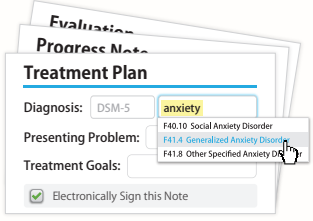
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