



A PUBLICATION OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION • JAN/FEB 2022

monitor on psychology

GST# R127612802

14 EMERGING TRENDS FOR 2022

WHAT'S AHEAD FOR PSYCHOLOGISTS AND THE FIELD?

UNPRECEDENTED TECH FUNDING

A CRISIS AMONG CHILDREN

INTENSIFYING CLIMATE CHANGE

AN END TO STIGMA

GROWTH OF OPEN SCIENCE

TRANSFORMING THE WORKPLACE

A TELEHEALTH REVOLUTION

AND MORE

BEGINS ON PAGE 42

FROM START

TO FINISH



CAN BE A CHALLENGE TO ADDRESS

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

MHS' suite of complementary ADHD tools such as the **Comprehensive Executive Function Inventory™**, **Conners Continuous Performance Test 3rd Edition™**, and the upcoming revision to world's leading ADHD assessment, **Conners 4th Edition**, provides a fair, inclusive, and comprehensive assessment of ADHD. Evaluate common comorbidities by pairing these tools alongside:

Autism Spectrum Rating Scales™

Children's Depression Inventory Second Edition™

Multidimensional Anxiety Scale for Children
Second Edition™

Visit **MHS.com/ADHDHub** to learn more



Give yourself the peace of mind to do your best work.

Only a few of the many benefits:

Telebehavioral Health coverage is included

Concerned about Cyber Attacks? Coverage is available

Information Privacy (HIPAA) Coverage up to \$25,000 for violations

Subject to the terms and conditions of the policy

Preferred program for APA Members who receive a 20% premium discount annually

americanprofessional.com | (800) 421-6694 ext. 2304 | psychology@americanprofessional.com



How to Reach Us

Answers to many of your questions may be found on APA's website: www.apa.org; for phone service, call (800) 374-2721; for story ideas or comments, contact Editor in Chief Trent Spinner at tspinner@apa.org.

RESOURCES, OPPORTUNITIES, AND NEWS FOR PSYCHOLOGISTS FROM APA

APOLOGY

APA Confronts Its Racist Past

APA has issued an apology to people of color for the association's role—and the role of the discipline of psychology—in contributing to systemic racism through both actions and inactions. APA's Council of Representatives passed this resolution unanimously on Oct. 29, 2021, along with two other resolutions: one delineating APA's and psychology's role to help dismantle systemic racism and another pledging to work to advance health equity in psychology. The apology and other resolutions are available on APA's website along with a historical chronology on psychology's contributions to systemic racism and a summary of the listening sessions that informed the apology. The apology is only the first step in the work needed. APA will next develop a long-term plan for achieving the goals identified in the resolutions to be presented to the Council of Representatives by its meeting in August 2022.

Email questions to APA's Equity, Diversity, and Inclusion Office at edi@apa.org.

HISTORY

I AM PSYCHED! VIRTUAL

APA has partnered with the Cummings Center for the History of Psychology and the Smithsonian Learning Lab to create a virtual version of APA's *I Am Psyched!* traveling multimedia exhibit, which explores the history and contemporary contributions of women of color in psychology.

Go to <https://on.apa.org/psychedvirtual>.



BIO

APA's New President: *Frank C. Worrell, PhD*

An introverted child named for a famous Barbadian cricketer, **Frank C. Worrell, PhD**, always preferred reading to sports. A native of Trinidad and Tobago, he spent his youth buried in fiction from the Hardy Boys to the original *Dune* novels. If his parents insisted he get outside, "I would throw a book out of the window and collect it and proceed to go to the park to read," said Worrell, still a devourer of literature and now director of the School Psychology Program at the University of California, Berkeley, and one of the world's leading school psychologists. Here is a quick look at Worrell's life and priorities, in his own words.

■ **First job:** Secondary school teacher.



Trinidad had a shortage of teachers, so the Ministry of Education hired students who had passed their A-level subjects.

I taught English language, English literature, and history for one year before beginning my undergraduate degree.

■ **Why you chose to study education:** My mother taught Infant 1, or kindergarten, in Trinidad for 30 years, so I grew up with someone passionate about education. Psychology was a happy accident on my path to becoming an English teacher when I discovered I liked research.

■ **Person you would love to meet:** Barack Obama. I study hope and other positive time constructs as protective factors, so his book *The Audacity of Hope* made him the person I would most love to have a conversation with.

■ **Favorite food:** Mine are all from Trinidad and include bake and shark, crab and callaloo, pelau, pholourie, and roti—followed up with sweetbread and washed down with rum punch.

PRESIDENT Frank C. Worrell, PhD

CHIEF EXECUTIVE OFFICER Arthur C. Evans Jr., PhD

CHIEF COMMUNICATIONS OFFICER Alicia Aebersold

EDITORIAL

EDITOR IN CHIEF Trent Spiner

MANAGING EDITOR Susan Straight

SENIOR EDITORS Lindsey Allen, Jamie Chamberlin, Tori DeAngelis, Jewel Edwards-Ashman

ART DIRECTOR Jerry Sealy

COPYEDITORS Steven Burr, Mike O'Connor, Jane Sunderland

PRODUCTION MANAGER Peter S. Kovacs

EDITORIAL ASSOCIATE Barb Fischer

APA MEDIA AND EVENT SALES

DIRECTOR OF MEDIA SALES Jodi Ashcraft

MEDIA SALES MANAGER James Boston

APA PSYCCAREERS OPERATIONS MANAGER Amelia Dodson

RECRUITMENT ADVERTISING SALES MANAGER Nancy Onyewu

RECRUITMENT ADVERTISING SALES

REPRESENTATIVE Shawn Deadwiler II


SENIOR MARKETING MANAGER Robin Tiberio

BUSINESS ADMINISTRATOR Eric Fuller

DESIGN & PRODUCTION Rebecca Halloran

SALES COORDINATOR Age Robinson

The *Monitor on Psychology* (ISSN-1529-4978) is the magazine of the American Psychological Association (APA) and is published 8 times per year—January/February combined, March, April/May combined, June, July/August combined, September, October, and November/December combined. Publications office, headquarters, and editorial offices are at 750 First St., N.E., Washington, DC 20002-4242. APA purchases only “first publication rights” for photos and illustrations. Therefore, it cannot grant permission to reuse any illustrative material. APA holds the copyright for text material in *Monitor on Psychology* articles. Permission requests to reproduce text material should be addressed to APA, Permissions Office, at the APA address. Telephone numbers: Headquarters (202) 336-5500; TDD (202) 336-6123; Display advertising (202) 336-5714; Classified advertising (202) 336-5564; and Subscriptions (202) 336-5600. The views expressed in the *Monitor on Psychology* are those of the authors and may not reflect the official policies or positions of the American Psychological Association or the *Monitor on Psychology*. No endorsement of those views should be inferred unless specifically identified as the official policy or position of the American Psychological Association. The publication of any advertisement by APA is an endorsement neither of the advertiser nor of the product. APA endorses equal employment opportunity practices, and we reserve the right to edit all copy and to refuse ads that are not in consonance with the principles of Title VII of the Civil Rights Act of 1964. Subscription to the *Monitor on Psychology* (\$6) is included in the annual dues and fees for all APA members and student affiliates. Individual subscription rate is \$50; individual surface rate is \$107; and individual airmail rate is \$139. Institutional subscription rate is \$93; institutional surface rate is \$203; and institutional airmail rate is \$235. Single copies are \$20 each. For \$16 extra, the *Monitor on Psychology* will be mailed first-class to subscribers in the United States, Canada, and Mexico. For \$75 extra, airmail is available to foreign subscribers (other than Canada and Mexico). Periodical postage is paid at Washington, DC, and at additional mailing offices. POSTMASTER: Send address changes to *Monitor on Psychology* Subscriptions Department, 750 First St., N.E., Washington, DC 20002-4242. CANADA SUBSCRIPTIONS: Canada Post Agreement Number 40036331. Send change of address information and blocks of undeliverable copies to PO Box 1051, Fort Erie, ON L2A 6C7. Printed in the United States of America. ©2022 by APA. Address editorial inquiries to the *Monitor on Psychology* editor, and advertising and subscription inquiries to *Monitor on Psychology*/advertising or *Monitor on Psychology*/subscriptions.

 Please recycle this magazine. If you wish to go paperless and receive only the digital edition of the *Monitor*, please email membership@apa.org or call (800) 374-2721. Answers to many member-related questions can be found on APA's website: www.apa.org.



Read, Listen & Learn

PANDEMIC STRESS CONTINUES TO TAKE A TOLL

1 APA's latest Stress in America survey revealed that 1 in 3 Americans are so stressed about the ongoing COVID-19 pandemic that they are struggling to make basic decisions in daily life. Read more about the findings at www.apa.org/news/press/releases/stress.

MENTAL HEALTH AND OUR CHANGING CLIMATE

2 A new report from APA and ecoAmerica details the impact of climate change on Americans' mental health, the latest research on climate change, and guidance and resources for individuals and communities.

Read the report at www.apa.org/news/press/releases.

CAN ANIMALS HELP HEAL US?

3 Psychologist Maggie O'Haire, PhD, of Purdue University's College of Veterinary Medicine, discusses her research on animal-assisted therapy on APA's *Speaking of Psychology* podcast—including what science has to say about how animals can improve our mental health. Listen at Apple, Stitcher, or wherever you get your podcasts.

■ **If you weren't a psychologist:** I'd be an anthropologist or a conductor. One of the things I took away from all my reading is a love for understanding other cultures. And I've conducted the youth choir at my church and amateur groups, and when I taught at Penn State, I audited the intermediate and advanced conducting classes to match some skills to the passion I had developed.

■ **Where psychology is most needed today:** It is perhaps a cliché to say this, but almost everywhere. We are

needed to address vaccine hesitation, political polarization, educational inequities, climate change, and social influence, among so many other issues.

■ **What you'd like to achieve this year:** Council just passed a historic set of resolutions about racism and discrimination. If I can help put in place structures that help institutionalize the association's responses so that this work continues far into the future, I will feel that I have accomplished something very worthwhile.

APA'S NEW PRESIDENT-ELECT Members have elected **Thema S. Bryant, PhD**, of Pepperdine University, as APA's 2023 president. Learn more at www.apa.org/news/press/releases/2021/11/bryant-davis-2023-president.





Digital Innovations to Improve Life *Beyond the Screen*

The world around us is constantly changing, but then again, so are we. Let us meet you where you are today and bring the focus back to **you**. Join us, your partners at Pearson, as we work to fulfill our commitment of making your life easier through digital enhancements. Let's *embrace* the distance between us and create *even stronger connections*.

Get to know one of our newest digital innovations, Q-gVP!

With **Q-global® Video Proctoring (Q-gVP)**, you can have the convenience and confidence of face-to-face conversation and administration — all within your normal Q-global workflow. You can easily assign one of 40+ assessments and proctor “in person” via video without juggling a third-party platform.

Coming this year: Q-global Video Proctoring+

Present digital stimulus books and video proctor assessments all within Q-global!



Q-gVP
Q-global®
Video Proctoring

Learn more at **PearsonAssessments.com/beyondthescreen**

800-627-7271 | PearsonAssessments.com

© 2021 Pearson Education, Inc. or its affiliates. All rights reserved. Pearson and Q-global are trademarks, in the US and/or other countries, of Pearson plc. CLINA15779-30936 EL 11/21





SPECIAL REPORT

14 EMERGING TRENDS FOR 2022

What's ahead for psychologists and the field?

In 2022, psychological science will play an increasingly outsize role in the debate about how to solve the world's most intractable challenges. Human behavior is at the heart of many of the biggest concerns, and psychologists have been asked not only to have a seat at the table but to take the lead on many of these issues. *See page 42*

ON THE COVER:
ILLUSTRATION BY
ALEX NABAUM/THE ISPO





Top 10 articles. Page 26

- 2 @APA: THE HOT LIST
- 8 PRESIDENT'S COLUMN
- 10 UPDATE FROM THE CEO

RESEARCH

- 13 IN BRIEF
- 26 TOP 10 DOWNLOADED ARTICLES
- 104 BY THE NUMBERS

NEWS

- 22 PREVENTING MASS SHOOTINGS
- 35 JUDICIAL NOTEBOOK

PEOPLE

- 31 5 QUESTIONS FOR NEETU ABAD
- 99 PSYCHOLOGISTS IN THE NEWS

CE CORNER

- 36 DIAGNOSING AND TREATING BIPOLAR DISORDERS

CAREER

- 87 TACKLING MISINFORMATION IN THE CLASSROOM
- 92 LAB WORK

EMPLOYMENTS ADS

- 100 THE BEST JOBS IN PSYCHOLOGY



Paying to avoid temptation? Page 19



CE CORNER

DIAGNOSING AND TREATING BIPOLAR DISORDERS

Psychologists are learning more about early symptoms, longitudinal course, and factors that increase risk of recurrences, leading to earlier diagnoses and more personalized treatment. *See page 36*



Preventing mass tragedies. Page 22



Parent-teen relationships. Page 19

Custom Websites and Marketing Solutions for Psychologists



Grow your practice with
brighter**vision**

APA Exclusive Member Discount

Get a new website for **\$39/mo**
(first year + no setup fee)

Promo Code: **APA22**
brightervision.com/apa
Expires: **1/31/2022**
303-578-2046



THE WORLD NEEDS PSYCHOLOGISTS

APA has issued a historic apology to communities of color—
a call for all of us to take action **BY FRANK C. WORRELL, PHD**



As I sat down to write this column, I could not help but think about the events of the past 2 years. Anchored by COVID-19 and the appalling death toll, we have also suffered the ravages of climate change—devastating floods in some places and raging infernos in others—and the

increased recognition that racism is another ongoing pandemic that must be eliminated. When I thought about all these challenges, they felt insurmountable. ¶ But then a poem called “Fight and Flag” came to mind. University of Auckland graduate student Alex Li wrote the poem in 2016 shortly after the June 12 mass shooting at the Pulse nightclub in Orlando, Florida. Rereading it provided me with the wherewithal to tackle the weighty and troubling issues facing us today. Here are a few lines:

I grew up wishing I was born some decades earlier
At the beginning of the 20th century,
Into the “big” times,
The grand times,
When meta-narratives transformed to what we learn
today as history.

I wished I had a righteous cause,
An indisputable justice such as
Fighting off the imperial invaders!
A purpose so terribly romantic
Yet so uncomplicated.

Times for those fights are long gone.

However, Alex has an epiphany later in the poem: “I don’t know why I thought this wasn’t ‘big’ enough a time.”

One does not have to yearn for a grand past to be a hero—there is much to do in the present. Racism, discrimination, income inequality, educational and health inequities, and transphobia are righteous causes that we must fight against and win. As you will read in this issue of the *Monitor* on page 2, our Council of Representatives has apologized to communities of color for APA’s role in “promoting, perpetuating, and failing to challenge racism.” Council has also acknowledged the role that racism plays in all aspects of our society and resolved to combat racism and work toward eliminating it from society. There are times when the world needs soldiers and diplomats. Today, the world needs psychologists. Let us all answer the call. ■

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



MEDIA NEWS GROUP/BOSTON HERALD/GETTY IMAGES

30Th

CELEBRATION

PAI®

THE PERSONALITY ASSESSMENT
INVENTORY™



Recognizing the PAI and author **Leslie C. Morey, PhD,**
on this milestone achievement.

PAR®

Creating Connections. Changing Lives.

AN URGENT NEED FOR YOUR WORK

A new year brings new opportunities to give psychology away **BY ARTHUR C. EVANS JR., PhD**



As an association, we are committed to using psychological science to address society's most complex challenges. To do this most effectively, APA and those we work with need to be intentional about shifting our paradigms and reframing issues to have the greatest impact. Below are a few examples.

■ **Advancing health equity.** 2021 APA President Dr. Jennifer Kelly's focus on health equity has provided guidance and demonstrated psychology's key roles in addressing health disparities. But the research questions we generate need a greater emphasis on factors beyond the individual, such as social determinants and system-level issues. While these factors predict more of the variance in health outcomes, we lack the range of studies needed to inform policy and system-level interventions. The interventions we pilot should more explicitly target social determinants of health, and our research goals should extend beyond publication to implementation in communities—increasing our work's reach and benefit to society.

■ **Exploring the future of work.** APA continues to help psychologists, employees, and employers address the COVID-19 pandemic's effects on the workplace by demonstrating that psychology's role goes beyond the individual level, working with those experiencing mental health crises. Across a variety of work

settings, psychology can also proactively help shape these environments to promote people's psychological health and well-being. The work psychologists do to coach leaders, build strong teams, and design effective workspaces not only helps accomplish this but elevates the visibility of industrial-organizational psychology and other areas of the field with which the public is less familiar.

■ **Elevating population health.** APA recognizes that our current paradigm for addressing health, particularly behavioral health, is inadequate given the complexity and ubiquity of these conditions,

especially given the impact of the pandemic. Consequently, we are placing greater emphasis on using a whole population approach that expands beyond a singular focus on treating illness to promoting psychological health across the entire population—for those who have diagnosable conditions, those at greater risk, and even those who are healthy. This approach emphasizes “working upstream” to help people before they are in crisis, focusing more on prevention and addressing social determinants of health, which account for a large proportion of the variance in people's health status.

As we increasingly advance our strategic priority to use psychological knowledge to address complex societal issues, we need to reframe these issues so that we develop novel solutions and incorporate the full breadth of our field. This will be critical for our success. ■



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

CLAIM BACK YOUR EVENINGS



Practice Management Software
that lets you spend more time
taking care of your clients

- ✓ Instant letter writer for emails or letters
- ✓ Invoice immediately, get paid faster
- ✓ Super fast note taking (180+ note templates ready-to-go)
- ✓ Automated appointment reminders and confirmations
- ✓ Easy-to-manage calendar
- ✓ Online forms for new client intake



"Power Diary has saved me at least 4 hours a week in admin time and the Client Portal means I don't have to take booking phone calls anymore. It's like having an office assistant!"

—Zea Eagle, Practice Owner

powerdiary.com

**START A FREE
TRIAL TODAY!**

To Get

50% OFF

for 6 Months

From

\$5

per week
(with offer)

Could your clients benefit from more exposure?

Have they considered virtual reality exposure therapy?

Affordable. No expensive equipment required

Convenient. Exposure is done at home

Efficient. Exposure can be done between therapy sessions

A smartphone, internet connection, and our VR headset is all it takes. You get access to their session via an online dashboard.

Clinical trial currently in progress with Otago University



Your client downloads the oVRcome smartphone app and chooses their phobia



They can invite you via the app and you get an email with access to the dashboard



You can edit their exposure VR plan, monitor their progress and connect into their real-time session remotely

Get 25% off any program

Let your client know they can use the voucher APA25 at checkout to get 25% off any program, this includes the headset.*

Current phobias covered:

Cynophobia
Trypanophobia
Arachnophobia

Social Anxiety
Acrophobia
Aerophobia

Claustrophobia
Musophobia

Ornithophobia
Entomophobia

*For a limited time only.



"We recommend oVRcome for people that can't make it into our clinic for treatment for their phobia or social anxiety."

Corrie Ackland | Clinical Psychologist, Sydney Phobia Clinic

For more information email adam@ovrcome.io or visit www.ovrcome.io



In Brief

THE LATEST PEER-REVIEWED STUDIES WITHIN PSYCHOLOGY AND RELATED FIELDS

COVID AND PARTNER AGGRESSION

According to research in *Psychology of Violence*, reports of physical and psychological intimate partner aggression increased 6- to 8-fold after shelter-in-place restrictions were put in place at the outset of the COVID-19 pandemic. Researchers asked 510 online participants in the United States—half of whom identified as a sexual or gender minority—in April 2020 to answer questions related to the period prior to and after the onset of COVID-19 in their community. Participants answered questions about pandemic-related stress, heavy-drinking habits, and acts of physical and psychological aggression toward their partner. The researchers found that physical aggression increased from an average of two incidents per year pre-pandemic to 15 incidents per year once shelter-in-place restrictions began. Reports of psychological aggression increased from 16 incidents per year to 96. While incidence of intimate partner aggression remained high among heavy drinkers, rates among this group did not increase during lockdown.

DOI: 10.1037/vio0000395

Reports of physical and psychological intimate partner aggression increased significantly during COVID-19 shelter-in-place restrictions.

IMPOSTOR PHENOMENON

Women and early career academics working in fields that prize raw talent or genius are more likely to experience impostor feelings—a sense of inadequacy despite evidence of competence and success—suggests research in the *Journal of Educational Psychology*. Researchers analyzed survey responses of 4,870 academic faculty, postdoctoral fellows, medical residents, and graduate students from nine public and private universities in the United States representing more than 80 science and humanities fields. Participants quantified their experiences of impostor feelings and the extent to which their field is driven by individual brilliance. The researchers found that the more participants in each field perceived professional success to require exceptional intelligence or innate skill, the more women and early career academics reported feeling like impostors compared with other academics. The results were especially pronounced among women from racial and ethnic groups that are traditionally underrepresented in academia.

DOI: 10.1037/edu0000669

BODY IMAGE AGES WELL

A study in *Body Image* indicates that satisfaction with body size, shape, and appearance gradually increases as people age, with later years characterized by the highest levels of self-confidence. Researchers asked 15,264 people in New Zealand between the ages of 18 and 94 to rate from 1 to 7 how happy they were



with their body image during the period between 2010 and 2015. The average rating for women across all age groups was 4.05, while for men it was 4.41. Increases in body confidence were more dramatic among women as they got older (moving from 3.80 in the youngest group to 4.33 in the oldest), whereas men tended to have a more positive overall attitude toward their bodies that gradually improved in their later years (moving from 4.64 in the youngest group to 4.89 in the oldest).

DOI: 10.1016/j.bodyim.2021.06.007

SCIENTIFIC MISINFORMATION

People who trust in science are less likely to be duped by misinformation, unless that misinformation appears to be backed by scientists, suggests research in the *Journal of Experimental Social Psychology*.

Satisfaction with body size, shape, and appearance gradually increases as people age.

I TRUST SCIENCE.

People who trust in science are less likely to be duped by misinformation, unless it appears to be backed by scientists.

Researchers asked 532 online participants to read an article about the fictitious “Valza virus,” which, according to the article, had been created as a government bioweapon and subsequently covered up. The researchers found that people with a greater trust in (or understanding of) science were less likely to believe the conspiracy. However, participants with a high belief in science were more likely to believe the article if it quoted fake scientists backing the conspiracy claim. Results were similar for a second study involving an article about genetically modified foods causing tumors. In a final study, participants were less likely to believe a conspiracy if they had first been asked to think about the importance of critically evaluating evidence.

DOI: 10.1016/j.jesp.2021.104184

COVID DISRUPTS BRAIN CONNECTIONS

Some COVID-19 survivors report significantly higher symptoms of post-traumatic stress (PTS), and these symptoms are associated with disruption of the function of large-scale brain connections, according to a study in *Neurobiology of Stress*. Researchers collected fMRI data and self-reported PTS symptoms from 50 COVID-19 survivors along with data from matched control participants. The COVID-19 survivors were discharged in early 2020 from hospitals in Wuhan, China, and were tested about 6 months post-discharge. The researchers

found that the COVID-19 survivors self-reported significantly more PTS symptoms than the controls. Survivors also exhibited disorganized activity in the supplementary motor area of the brain and abnormal brain connectivity patterns over time between sensorimotor and visual networks, both of which were associated with PTS symptoms.

DOI: 10.1016/j.jynstr.2021.100377

PTSD PREDICTS COMPLICATED GRIEF

Among individuals who survive a trauma resulting in the loss of a close friend or loved one, symptoms of post-traumatic stress disorder (PTSD) can predict

complicated grief—persistent, intense sadness and an inability to cope or accept the loss—years after the trauma, indicates research in *Psychological Trauma: Theory, Research, Practice, and Policy*. Researchers interviewed 275 bereaved survivors of the 2011 gun-violence massacre on Utøya island in Norway that left 69 dead at 4, 14, and 30 months after the event. They found that participants who reported PTSD symptoms were more likely to also report symptoms of complicated grief. Participants who experienced PTSD symptoms 1 year after the attack experienced even greater symptoms of complicated grief 2 years later.

Symptoms of post-traumatic stress disorder can predict complicated grief years after the trauma, researchers found after interviewing survivors of a massacre on Utøya island in Norway.

The researchers also found that complicated grief did not predict later PTSD, suggesting that targeting PTSD symptoms may mitigate later development of complicated grief.

DOI: 10.1037/tra0001087

NATIONAL PAROCHIALISM

According to a *Nature Communications* study, people cooperate more readily with people from their own country than with those from other countries. Researchers asked 18,411 participants from 42 countries to complete a prisoner's dilemma task in which they were given 10 monetary units and had to decide how many to keep and



JEFF J MITCHELL/GETTY IMAGES



FIND BALANCE IN YOUR PRACTICE

Balance your books.
Balance your schedule.
Balance your client relationships.

Balance your life.

Practice management built
**FOR THERAPISTS,
BY THERAPISTS**



therapy
appointment



how many to give to a partner. Before playing, participants were told that any money given away or received would be doubled. Despite the optimal result being both parties always giving away all of their money, the researchers found that participants were more likely to do so when their partner was a fellow countryman than when they came from a different nation. The result held regardless of whether participants' decisions were to be made public, whether the money exchanged was imaginary or real, and whether partners were from culturally different or similar nations.

DOI: 10.1038/s41467-021-24787-1

RELIGIOSITY SHAPES DRUG USE ATTITUDES

According to research in the *Journal of Rural Mental Health*, people in rural areas of

Appalachia and the midwestern United States who regularly attend religious services are more likely to support punitive rather than protective drug policies. Researchers surveyed 3,096 participants from 14 states in Appalachia and the Midwest about their own alcohol and drug use and their attitudes about social support and public policy related to alcohol and drug use. They also asked participants about their religious affiliation, religious service attendance, and religious leaders' attitudes about substance use support and public policy. The researchers found that while religious affiliation had no impact on either protective or punitive drug policy attitudes, participants' likelihood to support punishment of drug users increased in correlation with religious service attendance.

People in rural areas of Appalachia and the midwestern United States who regularly attend religious services are more likely to support punitive rather than protective drug policies.

However, if participants' religious leaders supported protective policies, they were more likely to also support such policies, and vice versa.

DOI: 10.1037/rmh0000188

METHAMPHETAMINE OVERDOSES SOAR

Overdose deaths involving psychostimulants other than cocaine—primarily methamphetamine—increased by 180% in recent years, while methamphetamine use increased nearly 50%, according to a study in *JAMA Psychiatry*. Researchers examined data from a national survey of 195,711 respondents ages 18 to 64 and an overdose database in the United States, both of which covered the years 2015 and 2019. They found that non-cocaine-related overdose deaths increased from 5,526 in 2015 to 15,489 in 2019. Past-year methamphetamine use increased over the 4-year period from 1.4 million people to 2.0 million people. Also, the number of people self-identifying as frequent methamphetamine users increased over that time frame from 615,000 to 1,021,000.

DOI: 10.1001/jamapsychiatry.2021.2588

FEW 'OUTGROW' ADHD

Just 10% of children diagnosed with attention-deficit/hyperactivity disorder (ADHD) completely "outgrow" it, with the rest showing residual symptoms into young adulthood, according to a study in *The American Journal of Psychiatry*. Researchers followed a group of 558 children with ADHD in the United States from age 8 to age 25. The cohort was assessed eight times,



Secure 2nd Line HIPAA COMPLIANCE

Popular choice for mental
healthcare professionals

We provide BAA.

7% DISCOUNT EXCLUSIVELY AT APA

AFFILIATE CODE: APAIPLUM



IPLUM INNOVATIVE FEATURES ON YOUR MOBILE



HD CALLING



MESSAGING



VOICEMAIL



RECORDING



HIPAA & BAA



PHONE TREE



TEAM
ACCOUNT



FAX

Sign up <https://iplum.com>



once every 2 years, to evaluate whether they had symptoms of ADHD. The researchers also asked family members and teachers about the participants' symptoms. Unlike previous research suggesting 50% of ADHD cases are resolved by adulthood, the researchers found that 90% of participants experienced intermittent periods of at least mild symptom remission into young adulthood.

DOI: 10.1176/appi.ajp.2021.21010032

THE COST OF SELF-CONTROL

According to research in the *Proceedings of the National Academy of Sciences*, people are willing to pay to avoid temptation. In the first of four studies, researchers found that 32 participants in the United States who had just started a diet were willing to pay an average of \$1.57 from a \$10 endowment to proportionately increase the chance that a tempting treat (e.g., a chocolate brownie) would be replaced with a healthy food item for the duration of a 30-minute trial. In three additional studies with 96 participants, new dieters undergoing acute stress paid \$3.38 to avoid temptation, those being offered an additional \$15 bonus to not eat the treat paid

When undergoing acute stress or attempting a new diet, people are more willing to pay to avoid a tempting treat such as a chocolate brownie.

\$2.85, and those both under acute stress and working for the \$15 bonus paid \$2.74.

DOI: 10.1073/pnas.2018726118

CLOSENESS WITH PARENTS HELPS TEENS

Research in the *Journal of Family Psychology* indicates that children in close, supportive relationships with parents at key points during adolescence have fewer adjustment issues. Researchers surveyed 388 mostly White adolescents from 202 families in the United States who had both a father and a mother. Participant data was gathered at three points between the ages of 12 and 20 and included questions on participants' weight concerns,

depression symptoms, and measurements of self-esteem and parent-child intimacy. The researchers found that father-adolescent closeness was associated with fewer depressive symptoms across adolescence and that mother-adolescent closeness was associated with fewer depressive symptoms during mid-adolescence, around age 15. They also found that father-adolescent intimacy was associated with fewer weight concerns for both girls and boys throughout adolescence. Mother-youth intimacy was associated with higher self-esteem across most of adolescence for girls and early and late adolescence for boys.

DOI: 10.1037/fam0000864



Research indicates that adolescents who have close, supportive relationships with parents at key points during adolescence have fewer adjustment issues.



IT'S IN YOU

Change minds.
Change beliefs.
Change systems.

Office of Admissions

1269 Barclay Circle | Marietta, GA

770-426-2884 | 800-543-3202

Admissions@LIFE.edu

[LIFE.edu](https://www.life.edu)



LIFE[®]
University

SOCIAL MEDIA AMPLIFIES MORAL OUTRAGE

Through social learning processes, “likes” and “shares” on social media platforms such as Twitter amplify expressions of moral outrage over time, often resulting in the spread of more extreme views, according to research in *Science Advances*. Researchers analyzed 12.7 million tweets from 7,331 Twitter users, about half of whom were deemed “politically engaged.” They found that positive feedback for tweets expressing moral outrage increased the likelihood of future expressions of outrage. The researchers also discovered that less politically engaged users were more influenced by likes and shares and, therefore, more likely to express outrage over time. In two additional experimental studies with 240 participants

in the United States using a simulated Twitter-like environment where social feedback was manipulated, participants conformed their expressions of outrage to the norms of their social networks, suggesting norm learning also guides online outrage. DOI: 10.1126/sciadv.abe5641

IQ LOWER IN COVID SURVIVORS

COVID-19 survivors scored lower on an intelligence test compared with those who were never infected, according to research in *EClinicalMedicine*. Researchers analyzed data from 81,337 participants in the United Kingdom who completed a test measuring different dimensions of cognitive ability between January and December 2020. A total of 12,689 participants reported having experienced COVID-19. After controlling for variables such as age, sex,

education level, and preexisting medical conditions, the researchers found that COVID-19 survivors underperformed on the intelligence test compared with those who had not contracted the virus. The greatest discrepancies were observed for tasks requiring reasoning, planning, and problem-solving. Participants who had been sick enough to require a ventilator performed the worst; their deficits were equivalent to a 7-point differential in IQ. While 275 participants took the intelligence test both before and after contracting COVID-19, the researchers were unable to draw conclusions about cause and effect. DOI: 10.1016/j.eclinm.2021.101044

LONELY TOGETHER

People living in high-density neighborhoods, especially those occupying tightly packed apartments, are more likely to feel lonely and socially isolated, suggests a study in *Landscape and Urban Planning*. Researchers compared health data from 405,925 participants in 22 United Kingdom cities to data about their housing type and neighborhood density. They found that for every additional 1,000 housing units within 1 kilometer of their home, participants’ self-reported loneliness and social isolation increased by 2.8% and 11.4%, respectively. The effects of high-density living were more pronounced in men and retirees, who were 23.5% and 17.4% more likely to report loneliness, respectively, than counterparts living in the lowest residential densities. The negative impact of high-density living was primarily confined to apartment dwellers, as people living in dense neighborhoods of detached housing were less likely to experience loneliness and social isolation. DOI: 10.1016/j.landurbplan.2021.104194





CHADIS

The Complete Pre-visit Questionnaire Solution

100's of Evidence-based Tools & Intake Clinical Support Options to:

- Diagnose ▪ Monitor ▪ Collect teacher data
- Automated care plans for depression, substance use, & ADHD
- Automated post-visit patient education
- Facilitate Suicide Safety Plan

Web-based, Real-time Data for all Ages Categories Include:

- ADHD ▪ Abnormal Movements ▪ OCD
- Anxiety ▪ Conduct ▪ Development
- Depression/Mood Disorders/Suicide
- Eating Disorders ▪ Personality Disorders
- Family/Environment Measures ▪ Parenting
- Social Skills ▪ Substance Use ▪ Trauma

Visit: www.CHADIS.com
info@chadis.com

Reduce documentation burden.

Add income.

Automated, convenient, & flexible.

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

EMPOWERING COMMUNITIES TO PREVENT MASS SHOOTINGS

Psychology research is informing new strategies to reach people at risk of committing a violent act **BY HEATHER STRINGER**

In the fall of 2020, a prominent technology company in California contacted forensic psychologist J. Reid Meloy, PhD, a threat assessment researcher, because one of their software engineers had posted worrisome messages on a social media platform. The messages alluded to plans of a violent attack. The platform flagged the posts and alerted the FBI. As Meloy worked with the tech company's threat assessment team on the case, they discovered that the man had been struggling with social isolation—especially during the COVID-19 pandemic—and he had started connecting with political extremist groups online. When police entered his home with a warrant just before the November 2020 election, they found illegally modified assault weapons and evidence of online searches pinpointing the locations of public figures.

"Ironically, the case never received any news coverage because nobody was murdered, but this demonstrates the power of paying attention to warning signs," said Meloy, a clinical professor of psychiatry at the University of California, San Diego, and a consulting psychologist for the FBI. "More than half

FURTHER READING

Has the role of mental health problems in mass shootings been significantly underestimated?

Lankford, A., & Cowan, R. G.
Journal of Threat Assessment and Management, 2020

(In)action: Variation in bystander responses between persons of concern and active shooters

Craun, S. W., et al.
Journal of Threat Assessment and Management, 2020

Communication of intent to do harm preceding mass public shootings in the United States, 1966 to 2019

Peterson, J., et al.
JAMA Network Open, 2021

Making prevention a reality: Identifying, assessing, and managing the threat of targeted attacks

Amman, M., et al.
FBI, 2017

of public mass murderers leak information about their intentions to family members, friends, teachers, coworkers, on social media, or in other ways," he said (Silver, J., et al., *Aggression and Violent Behavior*, Vol. 38, 2018).

People on the pathway to violence usually give more extensive information about their plans to family members and close friends than to supervisors, teachers, or coworkers, but family and friends are less willing to report this information, said Meloy. This is because reporting has primarily led to punitive consequences for the person of concern, but psychology researchers are uncovering the benefits of using leaked information as an opportunity to learn more about an individual's situation and offer social and psychological interventions.

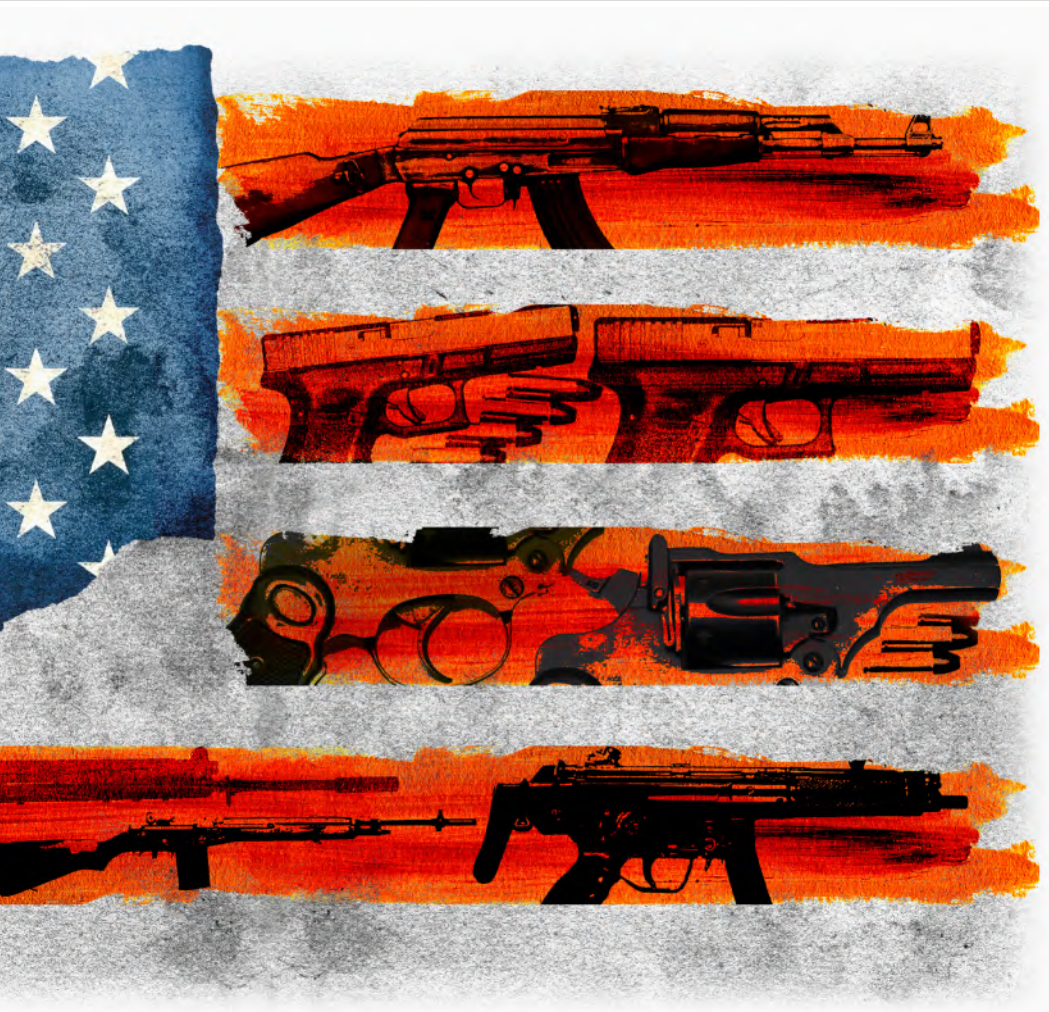
"There is usually a long pathway to violence, and so many missed points of prevention," said Jillian Peterson, PhD, an associate professor of criminology and criminal justice at Hamline University in St. Paul, Minnesota.

Eager to better understand the trajectory to violence, Peterson partnered with sociologist James Densley, PhD, to launch The Violence Project, a study of 168 mass shootings from 1966 to

2020. They defined mass shootings as incidents in which four or more victims were murdered with firearms in public locations, and 2017 to 2019 were the worst years on record for the number of shootings, with a combined total of 23. Aided by a \$300,000 grant from the National Institute of Justice, they gathered a team to comb through attackers' journals, manifestos, blog and social media posts, interview transcripts, and other sources. The team searched for information about more than 100 life-history variables, including mental illness, trauma, academic performance, and bullying. They



ROY SCOTT/INON IMAGES



also contacted 32 living mass shooters—a small number of the total because most had died by suicide during an attack or had been killed by police—and five agreed to participate in the study through letters or phone interviews from prison.

The team discovered that 42% of the shooters had experienced early childhood trauma and exposure to violence at a young age, such as physical or sexual abuse, having a parent commit suicide, bullying, or witnessing domestic violence. More than 80% had reached a crisis point in the hours, weeks, or months leading up to the incident. About

Researchers are working to identify telltale signs of trouble on the long pathway to violence as well as successful strategies and interventions to help prevent tragedies.

50% had been reprimanded, suspended, or fired from work shortly before committing the crime, and 1 in 4 had lost a romantic relationship before the attack. These crises had triggered noticeable changes in behavior in most shooters, such as increased agitation or isolation (*The Violence Project: How to Stop A Mass Shooting Epidemic*, Abrams Press, 2021).

Meloy has studied the patterns of mass murderers for 25 years, and his research team has identified eight proximal warning behaviors suggesting that someone is on the pathway to violence. For example, “fixation”

is increased preoccupation with a person or cause, accompanied by deterioration in social or occupational function. “Pathway” warning behavior is researching and planning an attack, and “identification” is identifying with previous mass shooters, such as when Adam Lanza compiled a spreadsheet with details of hundreds of mass violence incidents before he launched the Sandy Hook Elementary School attack in 2012 (*Journal of Threat Assessment and Management*, online first publication, 2021).

In the case of the software engineer in California, the social media company’s algorithms flagged the warning behavior. The man was transferred to a psychiatric facility, but Meloy was concerned about the transition from hospitalization back to the community. “This is often a weak point in the process when people can slip through the cracks,” he said. Meloy found a psychiatrist and a therapist who were both trained in forensics; they met with the man regularly, and the tech company checked in with him frequently. He received months of treatment as his criminal case slowly proceeded, and he disengaged from the political extremist groups. The court ultimately approved his decision to relocate to the Midwest to be near family. “He is a talented individual, and now he’s looking into further work and education,” Meloy said.

PAYING ATTENTION TO SUICIDE RISK

The Violence Project data also revealed that 72% of the shooters

in the database were suicidal either before or at the time of the attack. This doesn't surprise Karie Gibson, PsyD, a supervisory special agent for the FBI's Behavioral Analysis Unit. She analyzes incidents of mass violence and works with law enforcement agencies on cases to prevent attacks. Perpetrators frequently experience suicidal ideation before a shooting because they feel helpless and hopeless, Gibson said.

They often have grievances against people or organizations, which become rationalizations to make others suffer before killing themselves, she explained. If someone is a grievance collector and becomes suicidal, it's important to learn if they are thinking about or have gotten pleasure from thinking about hurting others.

"Sometimes psychologists do not probe deeply enough and they let the patient dictate the interaction," Gibson said. "At the heart of it, these people are hurting and have unmet needs, and asking these questions will help mental health providers be more strategic about intervening." If psychologists identify warning behaviors, they can share the

safety concerns with the patient and explore the possibility of voluntary hospitalization. If a patient is a danger to themselves or others but does not agree to this, then psychologists are usually required to break patient confidentiality and pursue involuntary hospitalization, said Gibson.

Gibson also teaches mental health providers about the timing of different stages in the pathway to violence. More than 62% of attackers are in the research-and-planning stage for 1 month to 2 years, and 54% are in the preparation phase—when an individual acquires supplies for the attack—for 7 days or less, according to a 2018 study published by the FBI. "If someone is in the preparation phase, it's critical to respond quickly," Gibson said.

Gibson's FBI unit receives three to five referrals per week from law enforcement agencies throughout the country, and she works with probation officers, mental health providers, court-ordered psychologists, and other stakeholders to assist the person of concern. "We have to share information with one another to understand what is really going on and

how to help the individual get to higher ground," she said.

MAKING COMMUNITIES SAFER

According to The Violence Project, 31% of the mass shootings in its database occurred in workplaces—followed by retail sites (16.7%), restaurants (13.7%), and K–12 schools or universities (11.9%). The vast majority of workplace shooters were insiders in the organization.

Psychologist Stephen White, PhD, president of Work Trauma Services, a threat management consulting firm in San Francisco, integrates research findings on risk factors for violence with years of case experience to help organizations reduce the likelihood of a workplace tragedy. White has helped hundreds of companies throughout the country and globally develop multidisciplinary threat assessment teams that are trained to respond when employees share concerns about a coworker. He also consults with these teams—which may include representatives from human resources, security, and the legal department—when they need an expert for a more difficult case. "Behaviors such as making threats or intimidating people are not reliable predictors in themselves of a serious threat," said White. "But they must be taken seriously."

White teaches teams how to talk to people who have been reported by coworkers. "Explain that there is a concern about harm, and that you want to hear their version of the story," he said. "These individuals usually feel humiliated and marginalized, and they have often experienced significant losses or rejections." In most cases, these conversations reveal that the person who made a threat does not actually pose a threat. Even when employees do not seem serious about hurting others, they may still benefit from having the opportunity to express their frustrations or grievances, White said.

WARNING SIGNS

DO YOU KNOW A GRIEVANCE COLLECTOR?

Questions to help identify patients who may be on the pathway to violence:

- Does the person seem stuck or fixated on wrongs/injustices (real or perceived) that have happened to them?
- Is the person experiencing hopelessness, desperation, and/or despair?
- Does the person see violence as an acceptable/desirable way to solve problems?
- Does the person have interests and relationships outside of the fixation on the grievance, such as family, friends, support, hobbies, etc.? If not, this is more evidence that the grievance is the primary focus.
- Does the person feel others/the world should treat them differently, or that they deserve to be treated better than others?



Carolyn Wright-Porcher (right) hugs her sister in front of Charleston's Emanuel African Methodist Episcopal Church, where a man shot and killed nine people in June 2015.

One of the most common mistakes organizations make is hastily firing someone for threatening behavior. This may be viewed as yet another insult or intolerable loss by the employee. Instead, termination can be postponed while the threat assessment team gathers information about the situation. For employees who are interested in accessing mental health services, White encourages companies to consider offering paid leave or a severance package with extended COBRA benefits. "Many times, the employee no longer wants to work at the organization," he said. "This allows them to find a respectful way out of the dilemma and get support."

Schools are another common target for shootings, and forensic psychologist Dewey Cornell, PhD, is at the forefront of the effort to establish effective threat assessment programs in K-12 environments. Cornell, a professor of education at the University of Virginia, developed a five-step model geared to help schools support at-risk students rather than automatically suspend or transfer youth who have made a threat. "Schools need to recognize that concerning behavior usually

means a student is having a problem that he or she can't resolve, so we need to take a problem-solving approach," he said.

In Cornell's *Comprehensive School Threat Assessment Guidelines* (CSTAG), he teaches teams how to gather information from witnesses and the student of concern to discern the severity of the threat. Only in the most serious situations—less than 10% of cases—the team should notify law enforcement and ask a school psychologist to conduct a mental health assessment. He also teaches teams how to develop a plan for a safe return to school for the student, which could include counseling, a check-in process with administrators throughout the day, and community-based treatment.

Cornell's team has trained staff and administrators at more than 1,000 schools throughout Virginia to use the model, and the program reduced school suspensions by 49% and school transfers by 80%. Students in schools using the model were 4 times more likely to receive counseling services (*School Psychology Review*, Vol. 41, No. 1, 2012). A recent study of schools that used the program from 2013 to 2019 showed

that all threats were resolved without serious injury.

This approach to threat assessment also reduces racial disparities related to discipline. Cornell and his colleagues found no disparities among Black, Latinx, and White students in out-of-school suspensions, school transfers, or legal actions in schools using any type of threat assessment (*School Psychology Review*, Vol. 47, No. 2, 2018).

In 2020, the state of Florida adopted the program, and Cornell's team provided trainers for 4,000 schools. While the growing interest in the model is encouraging, his work in the Virginia schools has shown that maintaining a program year after year is far harder than starting a new one. "Institutions do not change easily," he said. "There were districts who took the model to heart by committing time and resources to train new staff and organize team meetings, but this was not the case in every school."

Although the willingness to change varies, administrators and teachers have shared with Cornell how much the program has helped them navigate difficult situations. One team in Virginia worked with a high school student who made a threat because he felt depressed, alienated, and bullied. The team facilitated mental health counseling and regular parent communication, and they placed him in a special education program with a high staff-to-student ratio. When the student later heard about a school shooting on the news, he thanked members of the team for helping him avoid that kind of notoriety. In 2020, he successfully graduated from high school.

"These kinds of experiences tell me we're on the right track," said Cornell. "It's a reminder that there is a tremendous need to establish standards for training and practice so that all schools can achieve the beneficial outcomes that threat assessment can offer." ■

College students have experienced significant emotional distress related to COVID-19, including feelings of disengagement and anxiety.

THE TOP 10 JOURNAL ARTICLES

In 2021, APA's 89 journals published more than 5,000 articles. Here's a quick look at the 10 most downloaded to date. **BY CHRIS PALMER**

1. COVID-19 disruption on college students: Academic and socioemotional implications

Tasso, A. F., et al.

This study in *Psychological Trauma: Theory, Research, Practice, and Policy* (Vol. 13, No. 1) reveals that college students experienced emotional distress on many levels during the COVID-19 pandemic. Researchers surveyed 257 students at a U.S. college who all participated in remote learning off campus

during the spring of 2020 because of the pandemic. Students reported being afraid of contracting COVID-19 and even more afraid of people within their social network contracting the virus. They also reported worrying about themselves or loved ones becoming severely ill, academic-related distress following the transition to remote learning, and COVID-19-related mental health distress, including interpersonal disengagement, struggles with motivation, and boredom, as well as anxiety,

depression, and sleep disturbances.

DOI: 10.1037/tra0000996

2. COVID-19 and the workplace: Implications, issues, and insights for future research and action

Kniffin, K. M., et al.

This article in *American Psychologist* (Vol. 76, No. 1) presents possible workplace trends resulting from COVID-19, including remote work, virtual teamwork and management,



YAKOBCHUK/LENAGETTY IMAGES

social distancing, and unemployment. The analysis suggests that working from home will continue and expand post-pandemic. As for effects on workers, the authors predict increases in economic inequality, loneliness, stress, burnout, and addiction. Other workplace changes the authors forecast include virtual work arrangements that may foster more participatory relationships, new performance management and evaluation systems for remote workers, and new modes of surveillance

by companies to check in on employees working remotely.

DOI: 10.1037/amp0000716

3. A closer look at appearance and social media: Measuring activity, self-presentation, and social comparison and their associations with emotional adjustment

Zimmer-Gembeck, M. J., et al.

This *Psychology of Popular Media* (Vol. 10, No. 1) study presents a tool to assess youth's preoccupation with their physical appearance on social media. Researchers administered a 21-item survey about social media to 281 Australian high school students. They identified 18 items with strong inter-item correlation centered on three categories of social media behavior: online self-presentation, appearance-related online activity, and appearance comparison. In a second study with 327 Australian university students, scores on the 18-item survey were found to be associated with measures of social anxiety and depressive symptoms, appearance-related support from others, general interpersonal stress, coping flexibility, sexual harassment, disordered eating, and other issues. The researchers also found that young women engaged in more appearance-related social media activity and appearance comparison than did young men.

DOI: 10.1037/ppm0000277

4. When social isolation is nothing new: A longitudinal study on psychological distress during COVID-19 among university students with and without preexisting mental health concerns

Hamza, C. A., et al.

In this study in *Canadian Psychology* (Vol. 62, No. 1), researchers examined the psychological impacts

of COVID-19 on the mental health of postsecondary students with and without preexisting mental health concerns prior to the pandemic. The researchers surveyed 773 college students in Canada in May 2019 and again in May 2020 about recent stressful experiences and their mental health status. They found that students with preexisting mental health concerns showed improving or similar mental health during the early pandemic compared with 1 year prior. By contrast, students without preexisting mental health concerns were more likely to exhibit declining mental health during the pandemic, perhaps because they had less experience with social isolation than did students with preexisting mental health issues, the researchers suggest.

DOI: 10.1037/cap0000255

5. Trauma-focused cognitive-behavioral therapy (TF-CBT) for interpersonal trauma in transitional-aged youth

Peters, W., et al.

This pilot study in *Psychological Trauma: Theory, Research, Practice, and Policy* (Vol. 13, No. 3) indicates that trauma-focused cognitive behavioral therapy (TF-CBT) is an effective treatment for young people who have experienced post-traumatic stress disorder (PTSD) following interpersonal trauma such as child physical or sexual abuse, maltreatment, or neglect. Researchers delivered 15 TF-CBT sessions over 25 weeks to 20 youth ages 15 to 25 (transitional-aged) in Australia, 16 of whom had a PTSD diagnosis. They found that following treatment, 15 of 16 participants no longer met criteria for a PTSD diagnosis, and self-report measures of PTSD, depression, and anxiety showed improvement, though some participants reported transient increases in symptoms. The researchers plan to conduct a larger randomized clinical trial to examine the effectiveness of TF-CBT for PTSD and


EMDR INSTITUTE
Founded by Dr. Francine Shapiro

CE CREDITS AVAILABLE

EMDR THERAPY
Basic Training & Specialty Workshops

Virtual Trainings by Time Zone

EMDR.com
831.761.1040



 **AMERICAN PSYCHOLOGICAL ASSOCIATION**

INTRODUCING THE NEWLY REDESIGNED
APA Membership Directory

Take advantage of your exclusive member benefit—The recently enhanced Directory helps you connect with members and build your network.

Personalize your listing with improved features:

- Areas of Interest
- Licensure and Certifications
- Social Media Links
- Your Photo
- And More



BUILD COMMUNITY, GET CONNECTED
Personalize your listing today

APA Membership Directory
community.apa.org

Top 10 Journal Articles

other frequently co-occurring symptoms, including anxiety, depression, and substance use.

DOI: 10.1037/tra0001016

6. Social media use and friendship closeness in adolescents' daily lives: An experience sampling study

Pouwels, J. L., et al.

Adolescents who use social media apps such as Instagram more frequently than their peers feel closer to their friends, suggests this study in *Developmental Psychology* (Vol. 57, No. 2). Researchers asked 387 adolescents ages 13 to 15 in the Netherlands to report six times per day for 3 weeks their Instagram, WhatsApp, and Snapchat use in the previous hour, as well as their momentary experiences of friendship closeness. They found that participants who used WhatsApp and Instagram with close friends with whom they felt a sense of trust, support, and intimacy more frequently throughout the 3 weeks experienced higher levels of friendship closeness during the study than their peers. However, participants felt less close to their friends after they had used Instagram or WhatsApp in the previous hour, perhaps, the researchers suggest, resulting from unmet expectations that friends would immediately provide feedback on their posts. Neither association was found with Snapchat.

DOI: 10.1037/dev0001148

7. Every (Insta)gram counts? Applying cultivation theory to explore the effects of Instagram on young users' body image

Stein, J.-P., et al.

This study in *Psychology of Popular Media* (Vol. 10, No. 1) suggests that young people who frequently browse Instagram in a highly engaged

way are more critical of strangers' bodies and indulge more often in disordered eating—even if their own body image is unaffected. Researchers asked 228 participants ages 18 to 34 in Germany about changes in weight-related knowledge, attitudes, and self-reported dietary restraint. They found that participants, especially women, who browsed Instagram's content more actively than their peers formed harsher views about the weight of strangers as well as an increased risk for disordered eating, but not a reduction in satisfaction with their own bodies.

DOI: 10.1037/ppm0000268

8. Nonverbal overload: A theoretical argument for the causes of Zoom fatigue

Bailenson, J. N.

This review article in *Technology, Mind, and Behavior* (Vol. 2, No. 1) combines theory and prior research to derive four explanations for "Zoom fatigue," the feeling of exhaustion brought on by video calls: excessive close-up eye contact with speakers, constant self-evaluation of one's own image on the screen, remaining in a fixed position in view of the camera, and the increased cognitive load of sending and receiving nonverbal communication. The author offers the following solutions: reduce the size of the Zoom window to minimize face size, hide "self-view," position the camera further away to allow for moving beyond a fixed sitting position without disrupting the call, and take "audio-only" breaks by both turning the camera off and turning away from the screen.

DOI: 10.1037/tmb0000030

9. Coping during the COVID-19 pandemic: Relations with mental health and quality of life

Shamblaw, A. L., et al.

During the COVID-19 pandemic, people using avoidance coping



Teens can use social media apps to strengthen friendships with close peers they trust, new research suggests.

strategies experienced increased depression and anxiety, while those using approach coping strategies, such as positive reframing, received the largest mental health boost, suggests this study in *Canadian Psychology* (Vol. 62, No. 1). In April 2020, researchers surveyed 797 online participants in the United States and Canada about 14 different approach or avoidance coping strategies as well as symptoms of depression, anxiety, and quality of life. One month later, 395 of the participants took the survey again. The researchers found that avoidance coping was associated with higher depression, higher anxiety, and lower quality of life at baseline and increased depression and anxiety 1 month later. Approach coping was associated with lower depression and better quality of life at baseline but not over the

1-month period. Of the specific coping strategies examined, reframing negative aspects of the pandemic was the most beneficial.

DOI: 10.1037/cap0000263

10. Integrating responsive motivational interviewing with cognitive-behavioral therapy for generalized anxiety disorder: Direct and indirect effects on interpersonal outcomes

Muir, H. J., et al.

This study in the *Journal of Psychotherapy Integration* (Vol. 31, No. 1) indicates that adding motivational interviewing (MI)—a psychotherapy module that helps people resolve feelings of ambivalence—to cognitive behavioral therapy (CBT) to treat generalized anxiety disorder (GAD)

can bring about long-term changes in nonassertiveness and overaccommodation. In other words, the combination treatment helps people better assert themselves and not give in to others' demands. Researchers randomly assigned 85 Canadian patients with GAD to a brief treatment of CBT or MI-CBT. Patients completed measures of nonassertiveness and overaccommodation throughout the treatment and across a 12-month follow-up. The researchers found that both MI-CBT and CBT reduced nonassertiveness and overaccommodation, but at 12 months, MI-CBT had helped patients more than CBT alone. This effect was explained by MI-CBT therapists' ability to help patients overcome midtreatment resistance.

DOI: 10.1037/int0000194 ■

NSU IS MAKING AN IMPACT ON SOUTH FLORIDA AND BEYOND.



THE COLLEGE OF PSYCHOLOGY is a leader in training, research, and service. Students apply the latest empirically supported intervention techniques in real-world settings and engage in innovative applied research.

Under the supervision of our nationally renowned faculty members, students receive training in our on-campus Psychology Services Center, in addition to community placements in diverse South Florida communities. Collaborating with faculty members on research provides opportunities for students to publish and present their work at local, national, and international conferences.

DEGREES OFFERED

Ph.D.* and Psy.D.* Clinical Psychology | Psy.D.* and Psy.S. School Psychology
M.S. Counseling | M.S. Experimental Psychology | M.S. Forensic Psychology
M.S. General Psychology

*The Ph.D. and Psy.D. Clinical Psychology and Psy.S. School Psychology degrees are accredited by the American Psychological Association. Contact the APA, Office of Program Consultation and Accreditation, at 750 First Street, NE, Washington, DC 20002-4242, 202-336-5979, apaaccred@apa.org.

For more information, call 800-541-6682, ext. 27563 (ask-me);
(954) 262-7563; or email gradschool@nova.edu.

Nova Southeastern University admits students of any race, color, sexual orientation, gender, gender identity, military service, veteran status, and national or ethnic origin. ■ Nova Southeastern University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate's, baccalaureate, master's, educational specialist, doctorate, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Nova Southeastern University. 11-044-19NLR

FOLLOW US ON



NSU
Florida
NOVA SOUTHEASTERN
UNIVERSITY

FLORIDA AND ONLINE GLOBALLY

5 QUESTIONS FOR NEETU ABAD

The CDC behavioral scientist draws on psychological theory to increase rates of COVID-19 vaccination **BY KIRSTEN WEIR**

P sychologist Neetu Abad, PhD, has traveled the world in support of vaccination campaigns for polio, measles, cholera, and other preventable diseases. As a behavioral scientist in the Global Immunization Division at the U.S. Centers for Disease Control and Prevention (CDC) since 2016, she applies her expertise in social psychology to encourage vaccination and understand vaccine hesitancy.

When the COVID-19 pandemic began, Abad was tapped as a co-leader of the vaccine confidence and demand team for the CDC's pandemic response in the United States. She and her colleagues gather data and draw on psychological theory to understand vaccine hesitancy, intentions, and disparities—and drive up vaccination rates. They come at the problem from a variety of angles: developing training materials for health care providers; planning social mobilization efforts with local governments, schools, and businesses; and sharing what they've learned about vaccine confidence with health departments, tribal partners, and the media. The *Monitor* talked to Abad about the drivers of vaccine hesitancy and how psychologists can help people overcome them.

How important is behavioral science in responding to the pandemic?

The pandemic has been all about behavioral mitigation—mask-wearing, social distancing, and eventually vaccines. Very quickly we saw the need to pull in strong behavioral science to tell us how to inform response strategies. Once vaccines came on the scene, we understood there



were varying perspectives toward them. Some people were early and enthusiastic adopters; others had questions or concerns. We spent a lot of time trying to find ways to connect with communities about their concerns. We're still finding ways to connect, but also looking at vaccine requirements and incentives to encourage vaccination.

What drives vaccine hesitancy?

Prior to the pandemic, I was part of a World Health Organization working group studying behavioral and social drivers of vaccination. Since 2018, we had been coming up with a behavioral model that we think captures this information (*Data for Action: Achieving High Uptake of COVID-19 Vaccines*, World Health Organization, 2021). There are a few different domains that relate to vaccine uptake and intent to vaccinate. One category is what people think and feel. This includes their perceptions of the vaccine and what they think about risk and vaccine safety. This is also subject to misinformation. At this

point, most everyone has been exposed to some misinformation about the vaccines. Then there are social processes—what people around you are doing and what you think people want you to do. Public health researchers have traditionally done a pretty good job of understanding individual-level attitudes, but we need to do more to understand these social processes, especially globally.

Then there are practical issues. Do people know where to get vaccinated? Are clinics open at accessible hours? These practical issues related to access are important. Addressing them can help reduce health disparities.

How do you start getting through to people who aren't yet vaccinated?

We've learned that what works over time are behavioral nudges—things that prompt behavior, either consciously or unconsciously. That might be making vaccines available at your work, or scheduling default appointments for vaccination that you would have to opt out of. Requirements can also be powerful. What works less consistently are what we might call “thinking and feeling interventions.” Changing people's minds is difficult on a population level. Communicating accurate messages about vaccines is important, but those messages don't consistently lead to behavior change. We're still searching for effective interventions to increase vaccine confidence. The influence of social networks is important. Sharing vaccine selfies on social media can help build the social norm at the micro level. We need to reinforce the fact that the majority of U.S. adults have gotten vaccinated against COVID-19.

What's unique about the hesitancy around COVID-19 vaccines?

Before COVID, my work generally focused on childhood vaccinations for diseases like measles and polio. Those vaccines have been around a long time and most people get them, so you're dealing with smaller pockets of people who don't want the vaccine or can't access services. COVID has been a game changer. We've had less than 2 years with this disease. The vaccines are new, and two of them were created using new mRNA platforms.

We have to remind ourselves that it's natural for people to have questions. We should expect people to want to know about new diseases and new technology used to defeat them. But now we're at the point where we need to think about the people who have persistent concerns. We're learning new ways to communicate

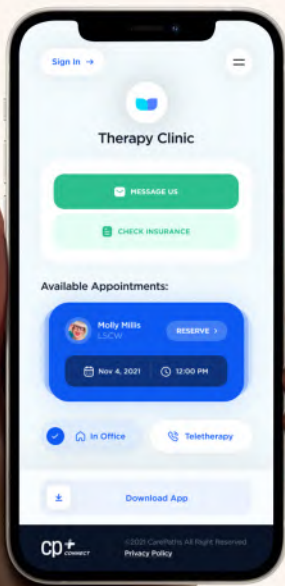
effectively to help people understand why these vaccines are so beneficial. The COVID vaccines have shown themselves to be incredibly effective. We're going to see more vaccines down the line, and we're going to be able to address and prevent more diseases than ever before, but we have to keep sight of the fact that this is new for people.

What can psychologists do?

There are endless opportunities for impact. For clinicians, these conversations may come up in therapy. Psychologists can use motivational interviewing skills to find the motivations in a person's life and draw on those common goals to discuss the intention to vaccinate. Everybody has something important to them—the people they love, things they want to protect, the disruption of the pandemic to stop.

Maybe someone has a needle phobia or is worried about being the only one in their social circle choosing vaccination. Psychologists can help people work through some of that anxiety. Research has also demonstrated that recommendations from health care providers of all types can impact vaccination, so an endorsement from a psychologist can go a long way.

There's so much room for research psychologists in this field. We need psychologists who understand behavioral theory, research methods, and analysis and can apply this to public health. Besides immunization, there are many areas of public health that can benefit from a behavioral science perspective. We are likely to see more public health emergencies in the future, and the need for behavioral scientists working in public health will continue to grow. ■





carepaths CONNECT

The **easiest** and **fastest** way to engage with your patients!

- ✓ Patients create their own accounts
- ✓ Scheduling, payment and appointment reminders
- ✓ Verify eligibility and insurance benefits
- ✓ Automated measurement-based care
- ✓ Secure text messaging and telehealth
- ✓ Claims submitted automatically

Backed by the Affordable and
ONC-Certified EHR:
CAREPATHS EHR

Learn more at
carepaths.com



APA Member Discount

Get your first 2 months Free!

2022 SIOP TOP 10 WORK TRENDS



Coming in mid-January!

Each year since 2014, the Society for Industrial and Organizational Psychology (Division 14) has surveyed its members about the top issues they are seeing impact the workplace.

Tune in to see the trends shaping the workplaces of today and tomorrow.

Industrial-organizational psychologists can help organizations grappling with these issues find solutions that are right for their organizations and their staff. Visit www.siop.org for more information.

*Trends going back to 2014
are also available online.*



SOCIETY for
INDUSTRIAL and
ORGANIZATIONAL
PSYCHOLOGY

SCIENCE FOR A SMARTER WORKPLACE

www.siop.org/Top10



AMERICAN
PSYCHOLOGICAL
FOUNDATION

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



DR. ALEXANDER P. BURGOYNE

Georgia Institute of Technology
*Reducing Adverse Impact and
Improving Personnel Selection
Using Tests of Attention Control*



DR. ABIGAIL M. FOLBERG

The University of Nebraska at Omaha
*Examining How Prejudice Confrontation
Diffuses Through Social Networks*

DR. MEGAN MILLER

Indiana University
*Investigating How Institutional
and Provider Racism Contribute
to Pain Treatment Disparities in
Adults with Sickle Cell Disease*



MS. SARAH GILLESPIE

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



DR. KATE M. TURETSKY

Barnard College, Columbia University
*Understanding and Ending Racial Bias
in Early Education Assessment*



DR. TERESA P. NGUYEN

Sonoma State University
*Socioeconomic Status, Racial
Discrimination, and the Well-being
of Low-Income, Latinx Families*



DR. FANITA A. TYRELL

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



MR. ROBERT J. VARGAS

Carnegie Mellon University
*Using fMRI-measured
Attitudes and Actions to
Predict Biased Decisions to
Punish among White and Chinese Americans*



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

WHAT TACTICS CAN BE USED TO CATCH ONLINE PREDATORS?

As tech advances, the court must also advance to guide law enforcement officers on how they can leverage technology to combat serious crimes

BY CYNTHIA CALKINS, PHD, AND SARAH LYNCH, JOHN JAY COLLEGE OF CRIMINAL JUSTICE

In *Ohio v. Deuble* (2021), a law enforcement officer impersonated a 15-year-old girl named “Bella Jane” online with the aim of catching predators. Daniel Deuble took the officer’s bait, sending unsolicited sexual material to Bella Jane and arranging to meet her in a local park. When undercover officers got to the park, they saw two men—one of whom met the physical description that the perpetrator had given to Bella Jane. The officers texted the perpetrator and observed as Deuble stopped shooting hoops to respond to messages while the other man continued to play. While officers questioned him, they sent another text message to ensure that they had the right person. The text message notification on the man’s unsecured smartphone home screen confirmed that he was indeed Deuble.

A trial court found sufficient probable cause for detention given that Deuble was one of only two people in the park, fit the physical description of the perpetrator, and was seen texting at the same time the undercover officers were sending and receiving texts. The Ohio Court of Appeals, however, reversed the decision. The court found that Deuble had an expectation of privacy on his cell phone’s notification screen based on the U.S. Supreme Court’s decision in *Riley v. California* (2014), which held that the police may not search a cell phone without a warrant. *Riley*, however, left unanswered whether that privacy expectation extends to an unlocked home screen. The Supreme Court recently denied the state of Ohio’s petition to allow officers to view a smartphone’s notification screen without a warrant. Deuble is currently listed as a tier II offender on the Ohio sex offender registry.

The Department of Justice reported in 2018 that

its task force had investigated more than 25,200 reports of technology-driven sexual offenses against minors. Sam Houston State University criminology professor Shelly Clevenger, PhD, and colleagues describe cybersex crimes as an endless game of “cat and mouse” given that technological developments allow people to leverage these advances for criminal purposes. As technology continues to advance, the law must also advance to determine what steps law enforcement officers are permitted to take to use that technology to their advantage when combating serious crimes.

There is a pervasive battle between the privacy awarded by the Fourth Amendment and how much that expectation of privacy extends to advancing technology. Increasingly nuanced questions, such as whether a smartphone’s lock screen is considered private, remain unanswered. The *Deuble* case brings into question the two-pronged *Katz* test (*Katz v. United States*, 1967), which requires one to show a subjective expectation of privacy that society would also consider reasonable. If Deuble had a reasonable expectation of privacy for the lock screen of his phone and society considers this expectation reasonable, then under *Katz*, officers should have obtained a search warrant to view it. Central Connecticut State University computer science professor Yusuf Albayram and colleagues, who surveyed individuals about home-screen habits in 2017, found that participants tended to underestimate the risk associated with not using a screen lock. Psychologists are well positioned to do research that probes privacy expectations—whether in smartphone home screens or other technology—that may interest courts grappling with the sorts of questions raised by *Deuble*. ■



AT ISSUE

Should there be an expectation of privacy for a smartphone’s notification screen?

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

CE

CONTINUING EDUCATION DIAGNOSING AND TREATING BIPOLAR SPECTRUM DISORDERS

BY ZARA ABRAMS

In the 1990s, bipolar disorder was seen as a severe, rare, incurable condition found only in adults. Medication, primarily lithium, was the sole treatment offered to most patients. Today, experts are learning that the disorder is more common—affecting about 4% of U.S. children and adults—and presents along a diverse continuum. More than half of patients have their first mood symptoms in childhood or adolescence, a full range of treatments exist, and people with the condition can survive and thrive (Moreira, A. L., et al., *The Journal of Clinical Psychiatry*, Vol. 78, No. 9, 2017; Van Meter, A., et al., *The Journal of Clinical Psychiatry*, Vol. 80, No. 3, 2019). ¶ “The more we study bipolar disorder, the more we appreciate its complexity, especially around the onset of symptoms and in the underserved,” said Manpreet K. Singh, MD, an associate professor of psychiatry and behavioral sciences at Stanford University. “There isn’t

going to be a single genetic marker, research tool, or treatment plan that resolves this complexity.”

Psychologists and psychiatrists studying bipolar disorder are characterizing complexities of the condition, including its earliest symptoms, longitudinal course, and the psychological factors that increase risk of recurrences. They are also applying new approaches (such as studying vascular contributions to the condition) and technologies (including using wearable devices) to obtain rich new data.

All of this is driving two major shifts that are already proving life-changing for patients: earlier and more accurate diagnosis and increasingly personalized treatments.

“For a long time, there has been so much stigma, so much confusion, and so much uncertainty about this illness,” said Eric A. Youngstrom, PhD, a professor of psychology, neuroscience, and psychiatry at the University of North Carolina at Chapel Hill who studies bipolar disorder. “We now have a revolutionary new view for diagnosing and treating bipolar disorder that I’m positive can make a difference in people’s lives.”

COMPLEX DIAGNOSIS

Bipolar disorder is an episodic condition in which patients cycle between two or more mood states. Diagnosis is typically a two-step process: Clinicians first diagnose mood episodes—such as mania, hypomania, or

depression—and then they diagnose the disorder itself.

Mania is a distinct period of an elevated or irritable mood, along with persistent goal-directed behavior or energy, that lasts at least 1 week and potentially up to a few months and causes marked impairment, according to the Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition). Common symptoms include grandiosity, a decreased need for sleep, and excessive risky activity. A hypomanic episode is less severe: It lasts at least 4 days but does not cause marked impairment.

A depressive episode—which includes symptoms such as loss of interest, weight loss or gain, and thoughts of suicide—lasts 2 or more weeks and causes both impairment and distress. Mixed states, which are some of the hardest to treat, consist of phases with both manic and depressive symptoms. People with mixed states often have extreme irritability, volatility, and a high risk for suicide.

Euthymia, defined as mood functioning within normal limits, is crucial in diagnosing bipolar disorder because it helps clinicians find the beginning of a mood episode such as mania or hypomania. A patient who rapidly cycles between manic and depressive symptoms without a clear euthymia, for example, may be experiencing anxiety or attention-deficit/hyperactivity disorder (ADHD) rather than a mood disorder.


The DSM-5 lists four major categories of bipolar spectrum

CE credits: 1

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

1. Discuss how psychologists’ understanding of bipolar disorder has changed over the past 3 decades.
2. Describe mood states, symptoms, and diagnostic criteria for the four bipolar spectrum disorders.
3. List front-line pharmacological and psychological treatments for bipolar disorder.

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



Patients with bipolar disorder cycle between two or more mood states, such as mania, hypomania, or depression.

disorders, as well as versions of the illness induced by substances and other medical conditions, such as stroke or traumatic brain injury.

Bipolar I disorder is characterized by manic or mixed episodes, with or without depression, while bipolar II disorder involves episodes of hypomania and depression. Cyclothymic disorder involves depressive and hypomanic symptoms that cause impairment but do not meet the severity or duration criteria for bipolar I or II. The clinical picture of these disorders, including symptoms, prognosis, and comorbidities, typically looks similar in children and adults.

A fourth category, known as “other specified bipolar and related disorder,” describes patients with episodic mood symptoms who do not meet the criteria for the other three disorders—for example, a patient with recurrent manic symptoms that cause impairment but last less than 1 week. This disorder is more common than bipolar I or II, especially in children and adolescents, and carries a similar risk for co-occurring psychiatric conditions, suicide attempts, and family history of bipolar disorder. Research also suggests that in patients with a family history of the illness, about half go on to develop bipolar I or II (Axelson, D. A., et al., *Journal of the American Academy of Child & Adolescent Psychiatry*, Vol. 50, No. 10, 2011).

Experts argue that this points to the importance of providing support early on, even if it is not yet clear whether a patient will develop more severe mood symptoms (Singh, M. K., et al., *Bipolar Disorders*, Vol. 22, No. 7, 2020).

“The field needs to move

toward something similar to what we see in heart disease, where we don’t wait for the full manifestation of the illness before acting,” said Benjamin Goldstein, MD, PhD, a professor of psychiatry and pharmacology at the University of Toronto and director of the Centre for Addiction and Mental Health’s Centre for Youth Bipolar Disorder in Toronto.

EARLIER IDENTIFICATION

Unfortunately, psychology and psychiatry have a poor record when it comes to the timely and accurate diagnosis of bipolar disorder, with a high rate of missed diagnoses and an average lag time of 5 or more years between the onset of mood symptoms and a diagnosis of bipolar disorder (Jensen-Doss, A., et al., *Journal of Consulting and Clinical Psychology*, Vol. 82, No. 6, 2014; Marchand, W. R., et al., *Journal of Psychiatric Practice*, Vol. 12, No. 2, 2006).

Part of the problem is that with their diverse range of states and symptoms, bipolar spectrum disorders can look like major depression, anxiety, psychosis, substance use disorders, autism spectrum disorders, ADHD, personality disorders, or conduct disorders.

Consider two patients who visited a mental health clinic. Tamika, an 11-year-old girl, came in with her mother, who reported that her daughter had sudden increases in anger, aggression, and trouble sleeping. At home, Tamika threw toys and broke dishes; at school, she was loud and disruptive. Lea, an 18-year-old in her senior year of high school, came in by herself, reporting problems with attention

and anxiety about graduation and going to college. She thought she had ADHD. Could either of these patients have bipolar disorder?

To simplify the process of assessment and cut down on diagnostic errors when patients like Tamika or Lea come into a clinic, Youngstrom and his colleagues advocate that clinicians use a probability-based approach to diagnosis—akin to counting cards in blackjack—and they have created and tested a freely available model for doing so.

Youngstrom’s evidence-based assessment (EBA) model relies on an algorithm that makes risk calculations using the clinical evidence base. For example, compared with someone with no family history of mood disorders, a person’s chance of having bipolar disorder is 5 times higher if a parent or sibling has it, but only 2.5 times higher if a grandparent, aunt, or uncle does. The EBA model walks clinicians through a step-by-step evaluation that includes benchmark rates of various disorders, recommendations for high-quality clinical questionnaires, and reminders to ask about mitigating factors such as substance use, trauma, and bereavement (*Cognitive and Behavioral Practice*, Vol. 22, No. 1, 2015). Unlike machine-learning approaches, the EBA method keeps the clinician in the driver’s seat, choosing whether to obtain more information and when and how to begin treatment.

Using the EBA model, a clinician diagnosed Lea with bipolar II disorder. By looking at screening questionnaires, gathering family history, and asking focused questions during the clinical interview, her provider found evidence that

ABOUT CE

“CE Corner” is a continuing-education article offered by APA’s Office of CE in Psychology.

To earn CE credit, after you read this article, complete an online learning exercise and take a CE test. Upon successful completion of the test—a score of 75% or higher—you can immediately print your certificate.

To purchase the online program, visit www.apa.org/ed/ce/resources/ce-corner.

The test fee is \$25 for members and \$35 for nonmembers.

For more information, call (800) 374-2721.

As an APA member, take advantage of your five free CE credits per year. Select the free online programs through your MyAPA account.

built the case for bipolar. Lea often slept less than usual yet had more energy. During such periods, she was more likely to fight with her mother and friends. And her father, who no longer lived at home, had bipolar disorder. Tamika, on the other hand, did not meet the criteria for any bipolar spectrum disorder. Instead, her clinical interview uncovered a recent sexual assault, leading to a diagnosis of post-traumatic stress disorder.

In some cases, a clinician may not reach 100% certainty that a patient has bipolar disorder, but

early psychosocial and lifestyle interventions can improve long-term prospects, Goldstein said, especially in youth. “The more we can support young brains in developing healthy executive functioning, the better youth will be able to manage the illness if it strikes them,” he said.

Family-focused therapy (FFT), an intervention that teaches patients and family members about bipolar disorder and helps them communicate and solve problems related to mood episodes, can reduce depression and suicidal



Early evidence indicates that wearing blue light-blocking glasses, which help trigger melatonin production, before bedtime can help stabilize manic symptoms.

KEY POINTS

1

New research reveals that bipolar spectrum disorders are more prevalent, treatable, and complex than experts once thought.

2

More than half of patients have their first mood symptoms in childhood or adolescence, and accurate assessment is crucial for early intervention.

3

Front-line treatment typically involves a combination of medication and psychotherapy.

FURTHER READING

Evidence-based assessment

Youngstrom, E. A., et al.
Wikiversity, 2021

Expanding bipolar outreach during college

Singh, M. K., et al.
Journal of Affective Disorders, 2021

The bipolar disorder survival guide (3rd ed.)

Miklowitz, D. J.
Guilford Press, 2019

ideation in youth at risk for bipolar disorder (Miklowitz, D. J., et al., *JAMA Psychiatry*, Vol. 77, No. 5, 2020).

“When kids are showing early warning signs of bipolar disorder, the stress faced by families can be overwhelming, but how parents deal with these early signs can make a huge difference in kids’ outcomes,” said psychologist David Miklowitz, PhD, a professor of psychiatry at the University of California, Los Angeles.

LONG-TERM TREATMENT

Front-line treatment for most patients with bipolar disorder typically still includes medication, but there is also a growing recognition among many clinicians that drugs alone are not sufficient.

“We’re now realizing we can’t just treat everyone with medications,” said Miklowitz. “Psychoeducational treatment is very important in helping people learn how to cope with the disorder.”

Before starting psychotherapy, most patients who seek help during an acute episode of mania or depression receive an antipsychotic drug or mood stabilizer. Lithium is still considered the gold standard for both youth and adults, but it tends to work best for patients with bipolar I and a family history of the disorder (Grof, P., *Neuropsychobiology*, Vol. 62, No. 1, 2010). Long-term use of lithium, however, can lead to chronic kidney or thyroid problems, so providers and patients should carefully monitor side effects and seek the support of a physician when necessary (Forlenza, O. V., et al., *The British*

Journal of Psychiatry, Vol. 215, No. 5, 2019).

Another issue is that patients may stop taking lithium once they feel stable, which puts them at high risk for additional mood episodes, hospitalization, and suicide (Prajapati, A. R., et al., *Psychological Medicine*, Vol. 51, No. 7, 2021). For that reason, experts say it is particularly important to combine medications with psychotherapy.

Increasingly, psychopharmacology research is offering alternatives, such as the new antipsychotic drug lurasidone (Pikalov, A., et al., *International Journal of Bipolar Disorders*, Vol. 5, No. 9, 2017) and the anesthetic ketamine, which has been proven effective for treatment-resistant depression (Kryst, J., et al., *Pharmacological Reports*, Vol. 72, 2020). Rapid transcranial magnetic stimulation, which involves electrical activation of the frontal cortex, is also showing promise for depression and may help patients with bipolar disorder, Miklowitz said, but more research is needed (Nguyen, T. D., et al., *Journal of Affective Disorders*, Vol. 279, 2021).

“Many people who live with bipolar disorder spend more days depressed than they do manic,” said Singh. “Researchers are now putting some muscle and grease into understanding how we treat bipolar depression over the long term.”

Once a patient is stable, psychotherapy can help them learn to navigate life with bipolar disorder. FFT, which Miklowitz developed, educates patients and their families about the disorder, including how to recognize early warning signs of a mood episode, such as altered sleep patterns. Typically delivered after a person’s first or second mood episode and lasting up to 9 months, FFT helps families create a relapse prevention plan and learn how to communicate effectively (*Family Process*, Vol. 55, No. 3, 2016).

“With this disorder, psychotherapy is typically time-limited,” Miklowitz said. “Research has shown that 3-, 6-, or 9-month treatments focused on education and skill-building are effective in

preventing recurrences and improving overall functioning.”

Psychosocial interventions such as FFT can be modified to help patients manage the symptoms of bipolar disorder across the life span. In adults, the sessions often include a spouse and cover additional concerns, such as physical intimacy. For older adults, sessions may include an adult child who is a caretaker. Clinicians may also incorporate neuropsychological testing to determine whether a patient is also experiencing dementia.

Interpersonal and social rhythm therapy (IPSRT), developed by psychologist Ellen Frank, PhD, a professor of psychiatry and psychology at the University of Pittsburgh School of Medicine, and her colleagues, also delivers psychoeducation and helps patients regulate their daily routines, including work, social interactions, and sleep-wake cycles. IPSRT has been shown to reduce manic and depressive symptoms and to improve overall functioning in people with bipolar spectrum disorders (Stearns, L., et al., *Annals of General Psychiatry*, Vol. 19, No. 15, 2020). Cognitive behavioral therapy, dialectical behavior therapy, and group therapy—which offers the added benefit of peer support—are similarly effective (Novick, D. M., & Swartz, H. A., *Focus*, Vol. 17, No. 3, 2019; Goldstein,



Teaching patients and their families how to solve problems related to mood episodes can reduce depression and suicide ideation in youth at risk for bipolar disorder.

T. R., et al., *Journal of Child and Adolescent Psychopharmacology*, Vol. 25, No. 2, 2015).

IPSRT works partly by stabilizing mood through establishing regular sleep-wake cycles. Another inexpensive, low-risk way to regulate sleep is with blue light-blocking glasses, which help trigger melatonin production. Indeed, early evidence indicates that wearing blue light-blocking glasses before bedtime can help stabilize manic symptoms (Hester, L., et al., *Chronobiology International*, Vol. 38, No. 10, 2021).

Growing evidence also supports lifestyle changes in nutrition and physical activity. Eating and exercising in accordance with U.S. Department of Health and Human Services guidelines can improve emotional well-being, Goldstein said, and it can also boost cardiovascular health, which is implicated in bipolar disorder. Research by Goldstein and others shows that chronic inflammation harms brain health and may predict worse treatment outcomes in bipolar disorder (*Bipolar Disorders*, Vol. 22, No. 5, 2020).

For older patients, cognitive rehabilitation therapies, which are currently still in early trials, may become increasingly important, Miklowitz said. Research suggests that memory and other cognitive functions can deteriorate over time with successive mood episodes, and such therapies may help patients regain functioning (Solé, B., et al., *International Journal of Neuropsychopharmacology*, Vol. 20, No. 8, 2017).

To fully support patients with bipolar disorder, a coordinated effort between psychologists, who excel at developing and delivering psychosocial interventions, and psychiatrists, who have a sophisticated understanding of how medications can help, is crucial—and can even ameliorate depressive symptoms (Van der Voort, T. Y. G., et al., *The British Journal of Psychiatry*, Vol. 206, No. 5, 2018).

“It takes a village to treat bipolar disorder,” said Singh. “When patients, caregivers, psychiatrists, and allied mental



SYMPTOMS

DIAGNOSING BIPOLAR DISORDERS

MOOD EPISODES

Mania

- Elevated or irritable mood and persistent goal-directed behavior or energy
- Lasts at least 1 week
- Causes marked impairment

Hypomania

- Elevated or irritable mood and persistent goal-directed behavior or energy
- Lasts at least 4 days
- Does not cause marked impairment

Depression

- Depressed mood or loss of interest in life
- Lasts at least 2 weeks
- Causes impairment and distress

Mixed

- Episode includes both manic and depressive symptoms
- “Mixed mania” lasts at least 1 week or triggers hospitalization
- “Mixed hypomania” lasts at least 4 days with both depressed and hypomanic symptoms

- “Mixed depression” lasts at least 2 weeks with additional manic symptoms
- Causes marked impairment

BIPOLAR DISORDERS

Bipolar I

- Manic or mixed-manic episodes required for diagnosis
- Can diagnose with or without depressive episodes

Bipolar II

- No history of manic or mixed episodes
- Diagnosis requires combination of hypomania and depression

Cyclothymia

- Combination of depressive and hypomanic episodes, but patients do not meet criteria for bipolar II

Other specified bipolar and related disorder

- Manic symptoms that do not fit into the other diagnostic categories
- Common diagnosis for children and adolescents

health professionals work collaboratively, outcomes may be better than treatment by either a psychologist or psychiatrist alone.”

OPPORTUNITIES FOR RESEARCH

Even with these major strides in diagnosing and treating bipolar disorder, challenges remain. For one, interventions for bipolar depression are still less effective than those used for unipolar depression, and clinicians urgently need better options for their patients, said Goldstein. Some mood episodes, such as mixed states, and certain symptoms, such as irritability, attention problems, and anhedonia—or lack of motivation—also remain tough to treat, said Singh, and may ultimately require a multipronged approach. “Our patients are hungry for it. Usually, it’s those symptoms that linger that bring them to see us,” she said.

More attention is also needed to the longitudinal course of the illness, researchers say, which can continue to help delineate tailored treatment options. Clinicians hope to increasingly make personalized recommendations for medication and psychotherapy based on a patient’s symptom presentation, genetic risk, family history, recent environmental stressors,

lifestyle factors, and more. For example, providers may soon be able to better predict which patients will do well with a 6-month course of psychotherapy and which will require regular check-ins with a provider.

Researchers are also further exploring how wearable devices and smartphone apps can help patients track and manage mood symptoms. Miklowitz is testing a version of FFT that includes app-based mood tracking and communication skill-building tasks in an effort to improve patient engagement and outcomes (*Journal of Affective Disorders*, Vol. 281, 2021).

While research continues to home in on effective treatments, Youngstrom has directed his focus toward improving early recognition. That work involves comparing different questionnaires and rating scales, making them as short and convenient as possible without compromising accuracy, and improving accessibility for a variety of mental health providers and even patients.

“We’re reaching a point where we can deliver shortcuts that allow clinicians to work faster, be more accurate, and deliver better outcomes for their patients,” he said. “The science really does make this possible.” ■



14 Emerging Trends

The pandemic era has changed attitudes toward science and mental health

BY TRENT SPINER

In 2022, psychological science will play an increasingly outsized role in the debate about how to solve the world's most intractable challenges. Human behavior is at the heart of many of the biggest issues with which we grapple: inequality, climate change, the future of work, health and well-being, vaccine hesitancy, and misinformation. Psychologists have been asked not only to have a seat at the table but to take the lead on these issues and more.

Psychologists are being called upon to promote equity, diversity, and inclusion (EDI): Amid a nationwide reckoning on race—and a 71% increase in EDI roles at organizations over the past 5 years—psychologists are increasingly being tapped to serve as chief diversity officers and act in other similar roles. But the field is also at an inflection point, being called upon to be more introspective about its own diversity in terms of the people who choose to become psychologists, the people who are the subjects of psychological research, and the people who have access to psychological services.

Psychologists are now the most requested experts by the mainstream media. As our culture increasingly sees mental health as an important piece of overall well-being, psychologists are being called to serve in a

wider array of roles, including in entertainment, sports, advocacy, and technology.

On the technology front, the delivery and data collection of psychological services is gaining increased interest from venture capitalists. Private equity firms are expected to pour billions of dollars into mental health projects this year—psychologists working on these efforts say greater investments will help bring mental health care to millions of underserved patients.

That said, the urgent need for mental health services will be a trend for years to come. That is especially true among children: Mental health–related emergency department visits have increased 24% for children between ages 5 and 11 and 31% for those ages 12 to 17 during the COVID-19 pandemic.

That trend will be exacerbated by the climate crisis, the destructive effects of which will fall disproportionately on communities that are already disadvantaged by social, economic, and political oppression.

Reporters and editors for the *Monitor* spoke with more than 100 psychologists to compile our annual trends report, which you'll find on the following pages. As always, we appreciate your feedback and insights—email us at Monitor@APA.org.

● Trent Spiner is editor in chief of the *Monitor*. Follow him on Twitter: @TrentSpiner



Congresswoman and psychologist Dr. Judy Chu of California's 27th District says her training in active listening makes her a more effective politician.

The Rise of Psychologists

Psychological expertise is in demand everywhere

BY STEPHANIE PAPPAS

Opportunities
abound for
psychologists at
tech startups, says
Dr. Ali Mattu of
Loop, a company
developing an
app-based program
to aid people with
social anxiety.



Psychologists have long worked outside the therapist's office. But now, the demand for psychology expertise is spreading. Maybe it's the declining stigma around mental health, or maybe it's the aftershocks of the pandemic. Maybe it's just the always-on pace of modern life or the general sense that the future is uncertain. Whatever the reasons, psychologists are finding themselves with bigger, more visible roles in government and media, on movie sets, in tech startups, and elsewhere. Even the most traditionally macho of athletes are looking for psychological support, said Justin Anderson, PsyD, a sport psychologist who has worked with collegiate, professional, and Olympic athletes. "The stress levels are increasing, and the tools that people have to manage those stress levels are staying the same," he said. Not only is mental health now

seen as worth addressing, but psychologists are also increasingly viewed as having the chops to function in a wide variety of industries.

That's because psychology training emphasizes several in-demand skills, from data analysis to building functional multidisciplinary teams.

"There's a lot out there that really does overlay the training we psychologists have," said Anjali Forber-Pratt, PhD, who recently made the leap from academia to directing the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). "If you don't want to go the clinical route or the academic route, there are all of these really rich and robust opportunities that you may not realize are out there."

PROMOTING EQUITY

Perhaps the fastest-growing field where psychologists are sought after is in equity, diversity, and inclusion (EDI). EDI roles at organizations increased 71% between 2015 and 2020 (*LinkedIn Talent Blog*, Sept. 2, 2020). Not all these roles are filled by psychologists, but a psychology background can be extremely valuable, said Kizzy Parks, PhD, an industrial and organizational psychologist in Melbourne, Florida, and owner of K. Parks Consulting. "It's important to have an understanding not only of how teams interact but of office politics and individual personality characteristics," Parks said. "Now you throw in race, you throw in gender, you throw in education, and you have a lot of things going on."

Parks has long provided diversity consulting, but she's seen a shift since the racial injustice reckoning of 2020. Now, she said, organizations are more dedicated to the process than ever before and looking for meaningful change that psychologists can help initiate.

"Whereas before it was maybe some metrics, maybe some strategy, or 'Let's



Dr. Jennifer Mather spent 10 days in South Africa advising the filmmakers of the Academy Award-winning documentary *My Octopus Teacher* on the science of cephalopods.

just start with some training,’ now it’s more genuine, where they’re looking for a long-term relationship,” Parks said. The ability to run reliable and valid assessments makes psychologists valuable in this role, she added.

The attention toward racial disparities has boosted the interest in EDI, meaning a lot of different actors have come into the field, said Bernardo Ferdman, PhD, an organizational psychologist and principal at Ferdman Consulting. Psychologists aren’t the only ones skilled at EDI, Ferdman said, but they can help elevate the standards given their background in data, research, and human interaction.

EDI work is also growing in academia. Natalie Watson-Singleton, PhD, a clinical community psychologist at Spelman College, is the diversity and inclusion education director for Emory University’s Nia Project, a health services program for Black women survivors of abuse. Watson-Singleton provides diversity training and works with the staff to develop the program’s procedures and policies through an equity lens. It’s unusual to see such a role formalized in an academic medical setting, but it’s something Watson-Singleton hopes to see prioritized—and funded—moving forward. “There is a lot of deeper-level work that has to happen on an institutional level to see these kinds of roles pop up and really be meaningful,” she said.

INFLUENCING POLITICS AND POLICY

Psychologists are also taking on expanded roles in the public sphere. Sometimes this is through an EDI lens: Counseling psychologist Amber Hewitt, PhD, was recently named Washington, D.C.’s first chief equity officer. Jennifer Richeson, PhD, a social psychologist at Yale University who focuses on cultural diversity, was appointed to the President’s Council of Advisors on Science and Technology in September



2021 along with neuroscientist Frances Colón, PhD. And Forber-Pratt, who advised the Obama and Trump administrations on issues around disability, now directs research activities at NIDILRR. “For me, it just felt like a really unique opportunity to make a different type of impact,” she said.

Policy and advocacy can be natural outgrowths of psychological practice. Howard University counseling psychology professor Ivory Toldson, PhD, the recently appointed director of education, innovation, and research at the NAACP, began his career working in diverse communities and at the U.S. penitentiary in Atlanta. He could not ignore the societal reasons for his patients’ problems. The work “made me start to think about, how do we look at the aspects of our society that shape people’s lives, and how does that connect to the work of a psychologist?” Toldson said.

Some psychologists embrace a political role. Cynthia Ann Telles, PhD, a psychologist and professor at the

University of California, Los Angeles, was nominated in June 2021 to serve as the U.S. ambassador to Costa Rica, an opportunity that grew out of a long history of philanthropy and government advisory work around health care and mental health. Psychology is also valued in Congress: Judy Chu, PhD, a congresswoman representing California’s 27th District, taught psychology for 2 decades. She has been especially vocal about combating anti-Asian racism during the coronavirus pandemic. A psychology background has been a boon, Chu said. “Active listening is a huge tool in politics, because many times people just want to be heard,” she said. “Of course, you have to do something about the issues, but validating people’s feelings gets you more than halfway there.”

FROM THERAPY TO TECH

A high emotional quotient is also an asset in tech, where psychologists often find themselves working on multidisciplinary teams. All kinds of tech companies have

hired psychologists for years—big names like Microsoft, Google, and Facebook have plenty on staff—but more people with psychology backgrounds are now finding a niche at startups.

According to *Forbes*, investors provided a record-breaking \$1.5 billion to mental health startups in 2020 alone (see page 56). Not all those startups employ psychologists, but many companies are very serious about getting the psychological science right, said Brian Pace, PhD, a psychologist and director of clinical AI (artificial intelligence) at Lyssn, a company that uses machine learning to give psychologists feedback on their clinical work. Psychologists not only have clinical know-how and data skills but also can help develop products that are accessible, equitable, and as unbiased as possible. They have the skill set

to think through issues of delivery and monitoring how tech products are being used, Pace said. “The best people to have a finger on the pulse of how these platforms are being developed, run, and used are psychologists,” he said.

Pace is one of a team of four psychologists at Lyssn. Other psychologists who’ve made the leap to tech often find themselves as the sole mental health professional on staff. That’s the case for Ali Mattu, PhD, a clinical psychologist and director of mental health at Loop, a tech startup developing an app-based program to help individuals with social anxiety.

It might seem intimidating to step into that solo role, but Mattu said that his experience in clinical rotations prepared him to work within a team as the psychology “expert in the room.”

Tech is “a world that a lot of psychologists might not think of as a place for them,” Mattu said. “That’s completely false.”

ENTERTAINMENT AND SPORTS

As stigma around mental health has declined, the public profile of psychologists has grown. Psychologists are now the most asked-for experts through the media request services ResponseSource and HARO, according to digital marketing agency 10 Yetis (*PRWeek*, Sept. 21, 2021). Over a 6-month period, the firms received, on average, three requests for psychologist sources per week.

Documentary filmmakers are also seeking psychology expertise. Fathali Moghaddam, PhD, a Georgetown University psychologist who studies authoritarianism, recently appeared on

IT'S TIME FOR A CHANGE

LET'S MAKE IT TOGETHER



SCHOOL PSYCHOLOGY

make a difference for children, families, schools, and communities

EARN AN ED.S. OR PH.D. DEGREE

*The Ph.D. in School Psychology degrees are accredited by the American Psychological Association. Contact the APA, Office of Program Consultation and Accreditation, at 750 First Street, NE, Washington, DC 20002-4242, 202-336-5979, apaaccred@apa.org.



UNIVERSITY of
DENVER
MORGRIDGE COLLEGE
OF EDUCATION

TOP 100 COLLEGE

EASY TO APPLY

No GRE required!

RENOWNED FACULTY

Driven by the public good.
Dedicated to you.

FINANCIAL SUPPORT

100% of students receive aid & scholarships.

DIVERSE COMMUNITY

Committed to social justice, equity, and inclusion.

Apply today!

<https://morgridge.du.edu>

1-800-835-1607



Netflix's *How to Become a Tyrant*, a docu-series about how dictators use emotion and fear to gain control. Appearing in documentaries is a way to share psychological findings the public might not otherwise hear, Moghaddam said. "Suddenly, you're reaching tens of millions of people, sometimes hundreds of millions, and this is a wonderful opportunity to influence the wider world through psychology," he said.

Media work can be an extension of other education and advocacy work. Jennifer Mather, PhD, an experimental psychologist at the University of Lethbridge in Canada, has long advocated for the welfare of her experimental animal, cephalopods. She also provides consulting on scientific accuracy to the BBC, including for the David Attenborough-narrated series *The Blue Planet*. This led to a connection with filmmaker Craig Foster, who was working on a documentary about an octopus he'd been interacting with while diving off the coast of South Africa. Mather spent 10 days in South Africa helping Foster and his team get the science of cephalopods right. The resulting film, *My Octopus Teacher*, won an Academy Award in 2021. "I believe very firmly in science and the public in two different ways," Mather said. "I think the public deserve to be involved, and I think they very much deserve to be informed."

It's not just nonfiction. Producers telling fictional stories are also increasingly aware of the need to portray mental health issues accurately. For example, clinical psychologist Barbara Van Dahlen, PhD, founder of the mental health nonprofit Give an Hour, consults on the ABC show *A Million Little Things*, which deals with issues such as suicide and interpersonal violence.

More producers are also looking for mental health help for their actors and crew. Kim Whyte, MS, a licensed

professional counselor in Hinesville, Georgia, provided on-set mental health services during the filming of the Amazon Prime series *The Underground Railroad*. The show's producers wanted a counselor available given the challenging subject matter of the show. However, Whyte said, mental health support can be helpful even for actors in the frothiest of comedies. Filming, especially on location, involves long, stressful days far



Dr. Ivory Toldson's expertise in counseling, education, and advocacy led to an appointment as director of education, innovation, and research at the NAACP.

from support networks, and performers may not have access to their usual therapist. On-set work is a growth area to watch, Whyte said. "I haven't heard of it being widespread yet, but I know that it's about to be," she said. "I'm getting a lot of calls, a lot of questions."

There is also a growing awareness that athletes have mental health needs. Sport psychologists have long helped athletes hone their attitudes for peak physical performance, but there is now more focus on making sure athletes are also in peak mental shape. The National Football League (NFL) has enlisted several psychologists to address player well-being: Amber Cargill, PsyD, director of player wellness at the NFL Players Association, and Nyaka NiiLampti, PhD, vice president of wellness and clinical services for the NFL, both serve on the

league's Comprehensive Mental Health and Wellness Committee. As of 2019, individual teams in both the NFL and National Basketball Association (NBA) are also required to have a mental health clinician on-site. While not a requirement in other professional sports leagues, many teams are choosing to hire psychologists as support for players in recognition of the unique demands of the profession.

The demand for sport psychology has also increased in collegiate sports over the past decade, said Anderson, who works with University of Minnesota Athletics as well as professional sports teams. "We're definitely seeing the stigma of sport psychology beginning to drop," he said. "I would say the younger athletes are much more open to it than some of the veterans in the pro sports world."

There is even a nascent demand for sport psychology in youth sports. Katie Pagel, who has an MA in sport and performance psychology, is director of mental performance for the Colorado Rapids Youth Soccer Club, which boasts 11,000 young participants from northern Colorado. The demand is driven in part by elite athletes opening up about the importance of mental strength and stamina for peak physical performance, Pagel said. Parents also saw the importance of sports for their kids' mental well-being when pandemic lockdowns suddenly took away practices and competition.

Sport psychology is one way to help build psychological resiliency in the population at large, Anderson said, perhaps illustrating how a psychologist outside the counseling room can help ease the pressure on the psychologists inside. "We're seeing such a rise in mental health problems in the high school and college levels that we can't possibly treat everybody once they get into crisis," Anderson said. "We need more proactive programming." ■

Reworking Work

Industrial and organizational psychologists are helping employers and employees navigate as COVID-19 reshapes the world of work

BY REBECCA A. CLAY

Industrial and organizational (I/O) psychologist Charlene Zhang, PhD, is among the millions of employees who now work from home because of the COVID-19 pandemic, which displaced most office workers to their kitchens and living rooms back in March 2020.

But even though Zhang spent her time in graduate school researching the science of remote work, she often has to remind herself not to let the lines between work and home life blur. On the plus side, she can start working

whenever she wants. “But then I find myself checking emails all the time,” said Zhang. “I need to put in a conscious effort to separate work and life.”

Zhang is just one participant in a global, unplanned experiment in transforming work virtually overnight, whether workers stayed on the job in circumstances that were now life-threatening or had to transform their homes into offices, often with children as unwitting officemates.

Attitudes about work are already changing dramatically. For one, employees are reassessing work-life balance. APA’s 2021 Work and Well-being Survey, for example, found that prioritizing mental health has become more important to 59% of employees since the pandemic began. Research by Microsoft suggests that 41% of workers worldwide are considering leaving their current employers. Texas A&M University management professor and psychologist Anthony Klotz, PhD, coined the term the “Great Resignation” to describe

the phenomenon. (For a look at how COVID is forcing women out of the workforce, see “Women’s Workforce Losses” on page 66.)

“The 1918 flu pandemic shaped how workers approach work,” said Cort Rudolph, PhD, an associate professor of psychology at Saint Louis University, noting that the resulting uprisings over unsafe working conditions helped usher in employer-sponsored insurance and workplace safety improvements (*Industrial and Organizational Psychology*, Vol. 14, No. 1–2, 2021). Now, he said, instead of succumbing to the temptation to return to business as usual, society needs to consider what we’ve learned during this pandemic and reshape work again.

REMOTE WORK

Finding ways to improve remote work is a key priority. When workplaces sent many workers home in 2020, Zhang and colleagues took advantage of Twitter to gather real-time data about how

employees across the English-speaking world were responding (*Journal of Applied Psychology*, Vol. 106, No. 6, 2021).

Their analysis revealed many upsides, such as increased productivity, no commute, and the ability to structure workdays as desired. But while workers enjoyed “not sitting in a cubicle all day,” said Zhang, many—especially parents—reported that working from home was stressful because of blurred boundaries and competing demands from family also at home. Managers can help mitigate these challenges by equipping workers with proper home office setups, helping employees maintain structure by setting aside times for meetings, and encouraging colleagues to engage with each other via frequent check-ins.

Other I/O psychologists are focusing on specific elements of the work-from-home experience. Kristen Shockley, PhD, an associate professor of psychology at the University of Georgia, has examined the phenomenon of Zoom fatigue (*Journal of Applied Psychology*, Vol. 106, No. 8, 2021). In an experiment in which employees were randomly assigned to have cameras either on or off for 2 weeks and then switch conditions for 2 additional weeks, Shockley and colleagues found that having cameras on resulted in employees—especially women and recent hires—feeling more fatigued, less engaged in meetings, and

less like they had a voice in meetings.

“The self-presentation that goes with having the camera on is cognitively taxing,” explained Shockley. “You’re looking at yourself and being hypervigilant about how people are reacting to you.” In future research, Shockley hopes to investigate whether using avatars or side-view cameras that simulate a typical meeting space would help.

For members of marginalized groups, such as non-White workers and sexual and gender minorities, working from

home can feel more comfortable, said Darrin Grelle, PhD, principal research scientist at SHL, a company with offices around the world that helps employers select the best employees.

“Speaking as a gay man, the way you act in the office may not be the way you act at home, and that uses up emotional and psychological resources,” he said. “If you’re working remotely, you don’t have to do that as much, and, therefore, you have more cognitive resources to get your work done.”

It’s not just employees who are benefiting from remote work, said psychologist Dianne Nilsen, PhD, a managing partner and executive consultant at Curphy Leadership Solutions, a business strategy consulting firm. The pandemic has also demonstrated to once-reluctant organizational leaders that productivity doesn’t falter when employees aren’t in the office.

“A lot of employers are seeing increased profitability; business is even better with people working from home,” said Nilsen, coauthor of an APA



Div. 14 (Society for Industrial and Organizational Psychology) tip sheet on optimizing remote work. In fact, she said, the enhanced work-life balance remote work allows has become such a perk that she expects remote or hybrid arrangements to become the norm post-pandemic. “Those organizations that are insisting on butts in seats are having a very hard time recruiting and retaining people,” she said.

The statistics bear that out. According to market research firm Medallia’s 2021 Return to Work consumer insights study, fewer than 1 in 5 employees currently working remotely want to return to an exclusively in-person workplace. Instead, most prefer a hybrid arrangement, with 2 or 3 days of in-person work per week as the “sweet spot.” About half of workers said they would be very or somewhat likely to seek employment elsewhere if their preferred setup was not available.

Hybrid work, which offers the best of both worlds, will be the wave of the future, predicts I/O psychologist Tammy Allen, PhD, a psychology professor at the University of South Florida. “Ease of collaboration remains an issue,” she said. “There are still benefits of having face-to-face interactions, but people don’t need to be in the office 9 to 5 every day.” Employers shouldn’t just have half their workforce come in Mondays and Wednesdays and the other half come in Tuesdays and Thursdays, Allen said.

Instead, managers should focus on activities and ensure that team members are all in the office on the same days. “I have a colleague who has to go into work but then is just on Zoom meetings all day because the people he needs to work with are working from home,” Allen said. “You don’t need to go into an office just to do more Zoom.” Managers should also evaluate employees not on the amount of time they spend at work but on the impact they’re making with their work, she added.

IN-PERSON WORK

Of course, the majority of workers haven’t enjoyed the luxury of working from home; many jobs simply can’t be performed remotely. Even at the height of pandemic-induced teleworking in May 2020, only 35% of the total workforce was working remotely, according to a poll from the market research and analytics company Leger, commissioned by *The Atlantic* magazine. And those who have been at physical workplaces since the pandemic’s beginning—especially health care professionals—are burned out. A 2021 KFF/*Washington Post* poll, for example, found that 3 in 10 health care professionals have considered leaving the field.

To help such workers, the University of Colorado’s Rebecca Richey, PsyD, has developed a brief cognitive behavioral therapy (CBT) intervention for women working in health care (*Psychotherapy*, advance online publication, 2021). In contrast to traditional CBT, this intervention goes beyond challenging distorted thinking patterns to challenging sexism, racism, and other factors contributing to stress for this population.

“It empowers workers to use their voice to say this isn’t a problem with me; it’s a situation that’s not okay,” said Richey, an assistant professor of internal medicine and lead psychologist at the university’s Women’s Integrated Services in Health clinic. In one case, a health care worker tasked with working extra night shifts despite being a single mother used skills developed from Richey’s intervention to successfully challenge a boss who claimed her reluctance stemmed from not being a team player.

In addition, vaccine mandates are helping to make workplaces feel safer. In the summer of 2021, President Joe Biden announced federal vaccine requirements for as many as 100 million Americans—including vaccination or weekly testing

for employees of organizations with more than 100 workers, vaccination for employees of health care facilities that receive federal Medicare or Medicaid funding, and vaccination for executive branch employees and federal contractors.

Mandates are also an effective way to persuade many resistant employees to get vaccinated, according to psychology professor Arthur Markman, PhD, of the University of Texas at Austin, who studies decision-making (*The Conversation*, Sept. 23, 2021). For those who have made their opposition to vaccination public via social media, for example, mandates provide face-saving “social cover” to get the shot. Mandates also help tip the balance of evidence toward vaccination for employees who are wavering.

Employers also shouldn’t simply assume that their employees want to return to the norms of their pre-pandemic workplaces, said Allison Gabriel, PhD, a professor of management and organizations at the University of Arizona’s Eller College of Management. Employers shouldn’t assume that employees want to keep working at all, said Gabriel, pointing to the Great Resignation. “There’s an assumption that everybody wants to return to work, that everyone is grateful and thrilled,” she said. “That’s not what we’re seeing.”

What’s needed, said Gabriel, is a deeper dive into the emotional complexities of work during COVID (*Industrial and Organizational Psychology*, Vol. 14, No. 1–2, 2021). The pandemic has led many workers to realize their jobs no longer align with their broader goals, she said. Others may feel fearful or resentful about being forced back into situations that are still dangerous. Said Gabriel, “This is a crucial moment to step back and figure out new ways of doing things rather than making a big rush to the old way of working.” ■

Open Science Is Surging

Open science is becoming the norm in psychology—
a trend spurred on by the COVID-19 pandemic

BY HELEN SANTORO

The global crisis of COVID-19 has caused scientific insights and discoveries to evolve at an incredibly rapid pace. As a result, the push for open and transparent science has become more vital than ever. ¶ Open-source projects like Nextstrain, where scientists around the world can sequence and share genomic data of SARS-CoV-2, for example, have proven invaluable in aiding researchers' and public health officials'

understanding of how the virus is spreading and mutating. Many scientific publishers have also sped up their adoption of open science to help improve patient management, reduce mortality, and prevent new infections (Besançon, L., et al., *BMC Medical Research Methodology*, Vol. 21, No. 117, 2021). In fact, there were more than 125,000 COVID-19-related scientific articles published within 10 months of the first confirmed case, of which more than 30,000 were hosted by preprint servers (Fraser, N., et al., *PLOS Biology*, Vol. 19, No. 4, 2021).

In psychology, open science has been a point of discussion for many years, but the pandemic has forced researchers to become even more aware of its importance, said Peggy Christidis, PhD, a science program officer at APA. "With school closures and conferences going virtual, many people started relying on open science tools for the first time," she said.

Tools such as Open Science Framework, or OSF—a free, open platform that offers researchers, journals, and institutions the ability to submit preprints, share research posters, and more—bolster scientific research by allowing scientists to reanalyze data and



verify whether past study findings are replicable. This increases not only research transparency but also collaboration, thus amplifying the power of data and promoting a swifter path to innovation.

Work like this is particularly vital in the field of psychology, which has been dealing with its own reproducibility crisis since the early 2000s. The amount of scientific misconduct that occurs in the field is hard to quantify, but one study found that between 0.6% and 2.3% of psychologists admit to falsifying data, and between 9.3% and 18.7% have witnessed another researcher doing so (Stricker, J., & Günther, A., *Zeitschrift für Psychologie*, Vol. 227, No. 1, 2019).

Additionally, just under 65% of retractions in the APA database PsycInfo were due to misconduct.

Open science can help ensure that the "publish or perish" mentality doesn't lead to journals printing embellished, flashy, positive results. "Fraudulent behavior can still occur with open science, but openness makes some fraudulent behaviors more inconvenient to do and easier to detect," said Brian Nosek, PhD, founder and executive director of the Charlottesville, Virginia-based Center for Open Science. "For example, a recent case of fraudulent data was detected because of open science—the data set was posted to OSF, and other researchers identified problems in the data set."

Before the pressures of the pandemic took hold, researchers at the National Institutes of Health noted increased rates of data sharing in studies published from 2014 to 2016 in the popular journal *PLOS ONE* (Federer, L. M., et al., *PLOS ONE*, Vol. 13, No. 5, 2018). Another analysis found that preregistration—or the specification of research design, hypotheses, and analysis prior to seeing the outcomes of a study—is becoming the norm in psychology. In 2019, Nosek and colleagues also discovered that of the 1,987 tenure-track research faculty studied in one psychology department, 35% had accounts with OSF.

Nosek believes this trend will only strengthen in the years to come. "Adoption of open science behaviors continues to accelerate in psychology," he said. ■

Prominent Issues in Health Care

How psychologists are working for positive change

BY ZARA ABRAMS



The Mental Health of COVID Health Care Providers

Early in the pandemic, psychologists helped document an increase in anxiety and depression among health care providers. Now, that acute stress has transformed into ongoing frustration, fatigue, and burnout as medical workers face surging cases, overflowing hospitals, nursing shortages, protests against vaccination mandates, and other difficulties.

"All of that cumulative wear and tear, with no real break, has seriously impacted the health care community," said Helen L. Coons, PhD, the immediate past president of APA's Div. 38 (Society for Health Psychology).

Psychologists are helping health care workers meet those challenges through support groups, individual therapy, critical incident debriefs, wellness programs, resource guides, and more. Throughout the pandemic, health psychologists have also worked on the front lines, providing care to COVID-19 patients and their families and, increasingly, to people with long COVID.

• For more on APA's latest advocacy activities, visit www.apaservices.org/advocacy.



Racial Bias and Inequities

The COVID-19 pandemic has exposed plenty of cracks in society, including the vast racial disparities in access to health care. Psychologists have helped document that gap, identifying outcomes such as how people of color have been hit harder by COVID-19. Such inequities can be traced to institutionalized racism, which psychologists say is the root cause of unequal health care treatment, policies, and access in the United States.

In addition to receiving worse care, African Americans and other non-White racial groups regularly face discrimination from health care providers. "When physicians and patients interact, race plays a very significant role," said psychologist Louis Penner, PhD, a professor emeritus at Wayne State University in Detroit who has studied racial disparities in health care for several decades.

Research by psychologists is exploring the ways that implicit and explicit racial biases shape interactions between patients and providers, how those interactions can harm physical and mental health, and what ultimately works to reduce bias. Some are even translating this research into action by developing and testing workshops to curtail stereotyping by medical students and residents.

LEFT: TREVOR LUSH/GETTY IMAGES; RIGHT: THE GOOD BRIGADE/GETTY IMAGES

Throughout the pandemic, health psychologists have also worked on the front lines, providing care to COVID-19 patients and their families and, increasingly, to people with long COVID.



A Growing Need for Gender-Affirming Care

Psychologists are providing resources and care to address an onslaught of policies that limit health care access and other rights for transgender people; in 2021 alone, 33 states introduced more than 100 pieces of anti-transgender legislation, according to the American Civil Liberties Union.

“It’s important for psychologists to remain educated in working with trans youth, even if youth are coming to see them about something unrelated to their gender identity,” said Kristina Olson, PhD, a professor of psychology at Princeton University who studies gender development and well-being.

Transgender youth face higher rates of depression, anxiety, and suicide than their cisgender peers. To address this concern, psychologists are piloting psychotherapy interventions for transgender clients and compiling resources on pronoun norms, nonbinary gender identities, and how to find gender-affirming care. APA has also released several policy resolutions opposing anti-transgender policies and supporting gender identity change, along with a collection of online resources to assist with member-driven and state-level advocacy efforts.



Limited Access to Abortion

New and evolving challenges to abortion rights—including Mississippi’s law banning most abortions after 15 weeks and the Texas ban on nearly all abortions—have spurred new efforts by psychologists to minimize the mental health damage such laws may inflict on women.

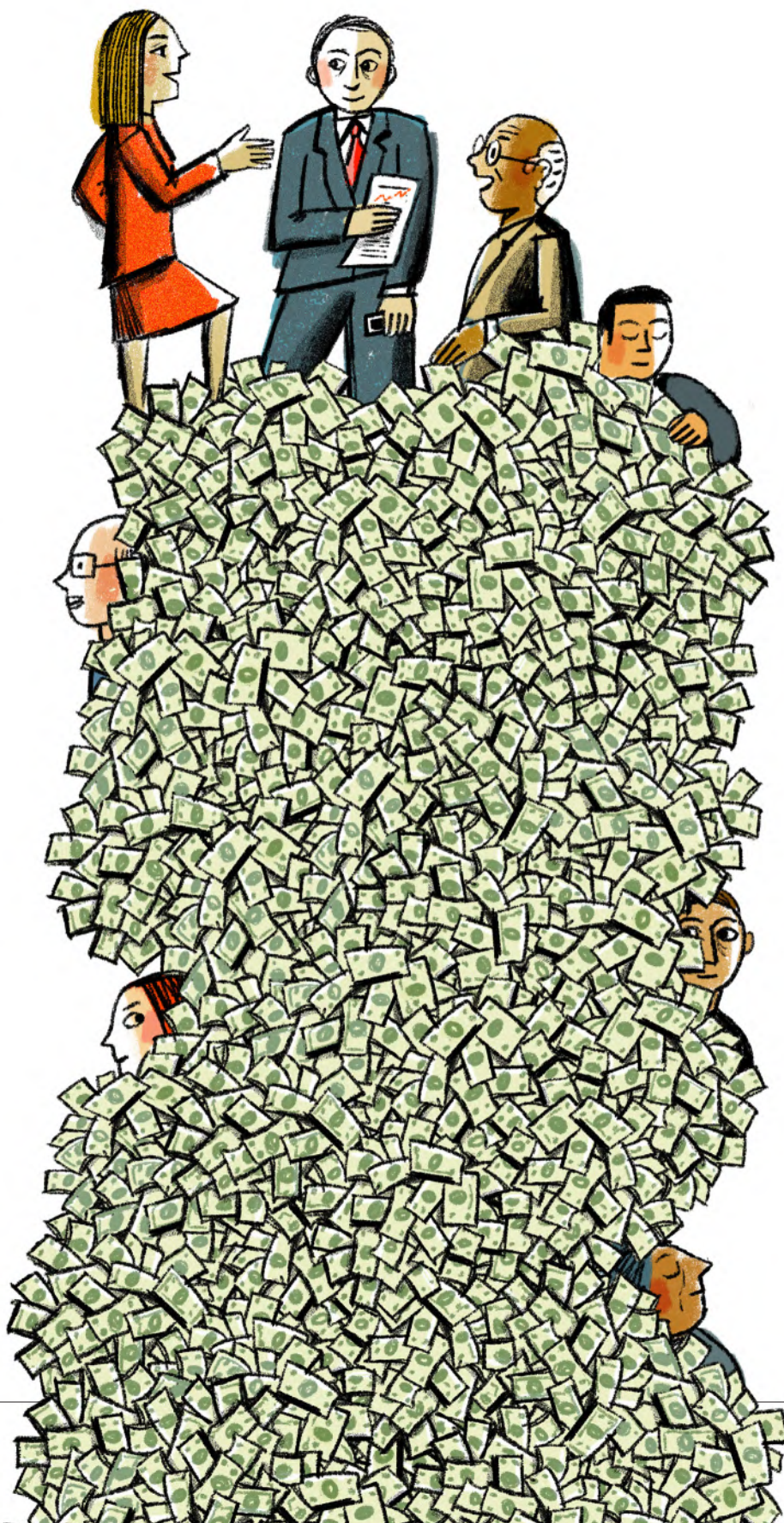
“Abortion in and of itself does not cause mental health issues,” said psychologist M. Antonia Biggs, PhD, a researcher at Advancing New Standards in Reproductive Health at the University of California, San Francisco. On the other hand, “denying someone an abortion due to gestational limits does cause short-term increases in stress and anxiety and lowers self-esteem.”

In September 2021, Biggs and more than 100 other psychologists and social scientists filed an amicus brief that urged the U.S. Supreme Court to reject the Mississippi ban. Research by psychologists and others shows that getting an abortion does not carry an increased risk for negative emotions, suicidal ideation, or other mental health problems. Perceived abortion stigma and logistical barriers that lead to delays, which experts say women in Texas and Mississippi are likely to face, do increase distress. Such challenges are likely to have an outsized impact on women of color and women of low socioeconomic status.

Mental Health, Meet Venture Capital

Private equity firms are funneling unprecedented funds into mental health apps and related interventions. How will this trend affect mental health care and the field?

BY TORI DEANGELIS



Until recently, mental health was a relative blip on the radar of venture capitalists. But over the past few years, and particularly since the onset of the COVID-19 pandemic, private investors have made a dramatic run for this space, pouring \$3.1 billion into mental health ventures by the third quarter of 2021 alone, according to Rock Health, a seed fund that supports startups working in digital health. That represents a third of all digital health funding for 2021, more than 7 times the amount of funding placed in such ventures in 2015.

The unprecedented demand for, and destigmatization of, mental health services is driving a dramatic rise in private investment in the sector.

The reasons for this boom are clear. The pandemic unleashed enormous new mental health needs, with anxiety and depression rates among U.S. adults skyrocketing from 11% in 2019 to 42% in December 2020, according to the U.S. Centers for Disease Control and Prevention. COVID also brought more people to telehealth and other tech options for treatment, and celebrities' public admissions of their own struggles helped destigmatize mental health in the public eye (see page 60). Combined, these forces have met head-on with the ongoing shortage of mental health providers, creating a perfect storm of funding opportunity, said Stephen Hays, a venture capitalist whose syndicate, What If Ventures, has provided \$33 million to mental health startups since 2020.

"The supply of mental health services and treatments and care is way too low for the amount of demand that's out there," Hays said. "From an Econ 101 perspective, if demand is far greater than supply and you put an accessible, effective, and affordable supply into the market, you're going to see growth."

The new investments support a wide array of technologies—everything from larger companies such as Lyra Health, a mental telehealth platform that recently received \$200 million from three private investors (see "The Seven Mental Health 'Unicorns,'" private companies valued at more than \$1 billion), to small companies that focus on developing a single app. (APA estimates that between 10,000 and 20,000 mental health apps are currently circulating in the market.) Most of these enterprises offer their wares digitally—through apps, telehealth, or a combination of the two—although Hays's syndicate has made significant investments in brick-and-mortar behavioral health companies and in psychiatric medications as well. The new interventions target a wide range of conditions, including anxiety, depression, insomnia, trauma, and substance use, and a number aim to reduce stress and improve well-being through mindfulness, meditation, and weight loss apps.

Because these products are largely unregulated, they vary significantly in quality and type, said psychologist Stephen M. Schueller, PhD, an associate

professor at the University of California, Irvine, and executive director of One Mind PsyberGuide, a nonprofit project that provides rigorous evaluation of digital mental health tools in various settings. Therefore, "there is a huge number of ways that people are thinking about creating business models, paying for these things, and rolling these products out," he said.

Given how rapidly this development is unfolding and the lack of oversight surrounding it, what does it mean for the future of mental health care and for psychologists?

EXPANDING ACCESS AND CHOICE

Outside of profit motivation, a central reason for this increased



THE SEVEN MENTAL HEALTH 'UNICORNS'

Genoa	\$2.5 billion
Lyra Health	\$2.3 billion
Calm	\$2 billion
BetterUp	\$1.7 billion
Talkspace	\$1.4 billion
Modern Health	\$1.2 billion
Ginger	\$1.1 billion

ROBERT NEUBECKER/THE IS POT

investment is the desire to improve access for the millions who need it, according to psychologists involved in the area. Even before the COVID-19 pandemic, less than half of U.S. adults and children with mental health conditions were receiving treatment because of stigma, cost, lack of providers, or long waiting times, according to the National Institute of Mental Health.

"We really see technology as a way to scale the capacity of the system in order to get individuals the care that they need," said Allyson Plosko, director at Telosity, a venture capital entity that funds early-stage companies aimed at improving young people's mental health and well-being. In that demographic, "getting someone help at age 14 can have an incredible impact on that individual's life," she said.

More products also mean more consumer choice, said psychologist Trina Histon, PhD, senior principal consultant in prevention, wellness, and digital health at Kaiser Permanente's Care Management Institute in Oakland, California. Kaiser Permanente, for example, uses six well-vetted commercial cognitive behavioral therapy (CBT) and mindfulness apps that tap different member preferences. "We recognize that members have different learning styles and diverse ways they want to consume content," Histon said. Meanwhile, other mental health care companies are developing digital interventions in other languages and for specialized populations, for example.

More venture capital also means that promising products—many developed by or in collaboration with psychologists—stand a better chance at coming to fruition, said psychologist Shannon Wiltsey Stirman, PhD, an associate professor at the Stanford University School of Medicine and co-chair of the Stanford Mental Health and Technology Innovation Hub.

"There is a history of people testing web-based interventions or apps and finding that they work but then lacking the funds or ability to sustain them," Wiltsey Stirman said. Working in a company with adequate funding can provide the extra ingredients—technological expertise, design, marketing, evaluation, and continual product improvement, for example—to make these online interventions and apps a reality.

LURKING QUESTIONS

But significant issues, questions, and problems remain. Is the rise in funding a fad that will disappear once the pandemic is better controlled or when people tire of using these products? Given the current lack of regulation,

how can people choose interventions that are effective? And what about uptake? In one study of 93 of the most frequently installed unguided mental health apps—apps whose implementation relies solely on the user's motivation—just 3.9% of initial users continued using them after 14 days (*Journal of Medical Internet Research*, Vol. 21, No. 9, 2019). That's an issue that dogs these products in general.

In addition, mental health tech companies are still considering how to address issues of diversity, equity, and inclusion best and most cost-effectively. The people you hope will benefit most from expanded access are often the least likely to purchase and use these technologies. It's also difficult to predict the



extent to which funders will be willing to support customized interventions for specific client groups, for example male teens with eating disorders or Latinx women with substance use problems, Schueller noted.

Last but not least, it's unclear what effect this new influx of money will have on traditional practice. Though the development is a big concern among some psychology practitioners, it is unlikely to upend face-to-face practice, those involved in the area believe. At their best, these products can provide the treatment necessary to support practitioners who are in high demand, to intervene with people who are awaiting care or require between-office support, or to enhance existing care modalities, said psychologist Frances Thorndike, PhD, senior global lead for insomnia at Pear Therapeutics, one of the few companies to receive U.S. Food and Drug Administration (FDA) approval for some of their digital products, including Somryst, a digital CBT intervention for insomnia.

"I always think clinicians are guiding the journey, but digital therapeutics can extend what we do and provide support, guidance, and feedback between visits," Thorndike said. "And when they've been rigorously reviewed, we can be confident that they work."

REASONS FOR OPTIMISM

There are other reasons to be hopeful about this trend. One is that venture capital companies are maturing in their vision of why they're funding these entities, said Histon.

"I've seen a shift from [the Silicon Valley mantra] 'Move fast and break things' to 'Move fast with intention,'" she said. At a recent panel she attended on venture capital, speakers "still said that making money was fun," she said, but "they're now much more plugged into the intention of doing good work and



putting good products out there."

Notably, psychologists are becoming key players in some of the recently funded companies, bringing the expertise needed to ensure clinical integrity from the beginning of a product to its eventual uptake. For example, before joining Pear Therapeutics, Thorndike worked for years on multidisciplinary teams when she was on the faculty at the University of Virginia, creating digital health products designed to improve access to care for high-need conditions like insomnia. Meanwhile, Andreas Michaelides, PhD, chief of psychology at the digital health platform Noom, has used his psychological expertise to help inform the way the company's products are conceived and developed.

Other positive developments include greater venture capital funding in companies run by women and people of color and the incorporation of these newer technologies into standard health care. In a paper in *NEJM Catalyst* (Vol. 2, No. 1, 2021), for example, Don Mordecai, MD, Histon, and colleagues describe how Kaiser Permanente has

developed a "digital ecosystem" that provides thorough training to clinicians in the technology, tailors the modalities to meet patient needs and styles, monitors and evaluates use and success rates, and continuously makes improvements. When patients use tools in a system like this, their rates of engagement jump 4 to 5 times higher than if they didn't have these aids. "These technologies are really a way to amplify the healing journey that members are on," Histon said.

HELPING WITH REGULATION

APA is keeping abreast of these developments and creating programs and products to help practitioners, technologists, and consumers understand and navigate this rapidly evolving space. The association is also working with stakeholders to address the fact that, at present, FDA-approved products—even those with a psychology basis—need to be prescribed but that most psychologists lack this authority.

To help fix this problem, APA and others "are working to develop a more innovative regulatory model that fits these softwares better and doesn't use the word 'prescription,'" said Vaile Wright, PhD, APA's senior director of health care innovation. To aid in this effort, in September 2021, the FDA designated APA an "expert partner organization," which will allow the association to provide expertise on behavioral change technology and methodology.

Like it or not, venture funding is pushing these technologies to a central spot in the mental health landscape. Instead of shying away, psychologists can seize the opportunity to ensure that these interventions are ethical, inclusive, live up to their claims, and help people get better, Wiltsey Stirman said.

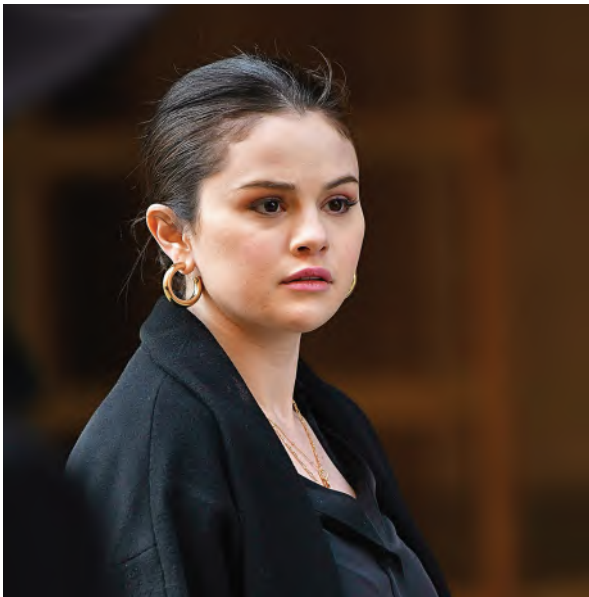
"There's a lot of promise in this area," she said, "but we've got to be really thoughtful and careful in how we go about it." ■

Kicking Stigma to the Curb

Celebrities publicly attending to their mental health struggles may liberate others to do the same

BY ZARA ABRAMS

For those in the spotlight, talking about mental health has long been taboo. But now, celebrities are increasingly going public with their mental health struggles, using their fame to help destigmatize seeking help. From gymnastics superstar Simone Biles withdrawing from the Olympic Games in Tokyo amid mental health concerns to Prince Harry opening up about his decades-long battle with trauma and grief, taking care of one's mind is more accepted than ever. ¶ Such efforts to dismantle stigma are critical, psychologists say, because negative stereotypes about mental health care prevent people from seeking help. Research suggests that in the United States, as many as half of people with mental



health issues do not receive adequate care (Kohn, R., et al., *Pan American Journal of Public Health*, Vol. 42, 2018; Corrigan, P. W., et al., *Psychological Science in the Public Interest*, Vol. 15, No. 2, 2014).

“That gap isn’t due to stigma alone, but stigma clearly dissuades many people from going into treatment,” said Patrick Corrigan, PhD, a professor of psychology at the Illinois Institute of Technology and editor of the APA journal *Stigma and Health*.

Celebrities who speak publicly about their mental health challenges—for example, when

singer and actress Selena Gomez described seeking help for anxiety, depression, and bipolar disorder—can even increase knowledge and advocacy around a condition in the population at large (Beck, C. S., et al., *Health Communication*, Vol. 29, No. 3, 2014).

“Celebrities are used to selling everything from clothes to cars to lifestyles,” said Douglas Gentile, PhD, a professor of psychology at Iowa State



University who studies the effects of media. “Seeing celebrities openly discuss mental health and the benefits of therapy relies on the same learning and persuasion principles that are known to be effective in influencing the public.”

Celebrity mental health disclosures don’t always improve the public’s perception of mental illness. Corrigan and his colleagues compared pop icon Mariah Carey’s self-disclosure of

Selena Gomez (opposite) has spoken openly about her mental health. Prince Harry (above) co-created a documentary series on mental illness, *The Me You Can’t See*, with Oprah Winfrey.

bipolar disorder with a similar story about a noncelebrity, Malia Fontecchio, and found that participants perceived the noncelebrity as more similar to them and more likeable. Reading Fontecchio’s story also led to a greater reduction in reported stigma (*Community Mental Health Journal*, 2021).

“People think Mariah is more famous, but they also think, ‘She’s not like me,’ so it tends to have a more muted effect on

changing stigma,” Corrigan said.

Some pop culture icons are also leveraging their public influence by launching organizations that raise awareness about mental health (Calhoun, A. J., & Gold, J. A., *Academic Psychiatry*, Vol. 44, 2020). Singer and songwriter Lady Gaga’s Born This Way Foundation works with youth to promote kindness and eliminate mental health stigma, and actress Taraji P. Henson’s Boris Lawrence Henson Foundation—named for her father, who struggled with bipolar disorder and post-traumatic stress disorder—addresses stigma and promotes mental wellness in Black communities.

Professional athletes, including Naomi Osaka, Aly Raisman, and Michael Phelps, are also fighting stereotypes with their candor about the pressures of competition and the need to prioritize mental health. Such disclosures may motivate fans and spectators to seek support, said Jamie Shapiro, PhD, a mental performance consultant who works with Olympic and Paralympic athletes and is past president of APA’s Div. 47 (Society for Sport, Exercise & Performance Psychology).

“Who better than athletes to show that it is not weak or shameful to talk about mental health?” said Olympic runner Alexi Pappas, who has spoken publicly about her depression.

“If we think about taking care of our mind the same way athletes think about taking care of their bodies, the shame goes away,” she said. “It becomes a question of health and peak performance.” ■

New Frontiers in Neuroscience

Recent discoveries about the biological underpinnings of human behavior are helping psychologists find new ways to improve people's lives

BY ASHLEY ABRAMSON

Understanding human behavior is the crux of psychologists' work and neuroscience is part of that understanding. To better grasp the mental processes that undergird thoughts, emotions, and behaviors, psychologists have long worked together with the neuroscientists who study the structure and processes of the brain and nervous system. Psychology and neuroscience overlap now more than ever as technology advances, which means psychologists have more opportunities to improve people's lives by understanding how nervous system activity drives complex thoughts and behaviors linked to mental health treatment and prevention. Neuroscientists, too, can learn more about their field through the work of psychologists.

"The brain creates the mind, so understanding how this happens shines new light on our psychological theories and interventions," said Kristen A. Lindquist, PhD, an associate professor of psychology and neuroscience at the University of North Carolina (UNC) at Chapel Hill. "In turn, understanding psychological theory and measurement of behavior means we can understand the functional meaning of firing neurons and blood flow to brain regions."

While psychologists' understanding of the biological processes involved in behavior has been evolving for years, a

few neuroscience-related trends stood out in 2021.

BRAIN CONNECTIVITY

Neuroimaging has long helped researchers understand the brain regions associated with specific traits or behaviors. More recently, psychologists have begun to study the connectivity between various regions. Rather than simply identifying increased blood flow in one area, psychologists are using advanced technology to study the correlation between blood flow changes in more than one brain region. While typical brain imaging suggests

the magnitude of change, connectivity highlights possible dynamics at play in more complex behaviors.

A simple example: If you see a piece of chocolate, your prefrontal cortex may light up along with your pleasure center, suggesting you're trying to resist the thing you crave. Studying this type of connectivity helps psychologists understand the processes behind certain behaviors and psychological disorders and create better treatments, says Lindquist.

For instance, a psychologist studying self-regulation already knows which area of the brain is active during moments of stress. Understanding how the prefrontal cortex and amygdala engage, and in what direction, could help psychologists diagnose and more effectively treat a patient who struggles to self-regulate.

A meta-analysis published by Lindquist and colleagues in 2020 examined brain connectivity patterns in younger and older adults (*Affective Science*, Vol. 1, 2020). They found younger adults have more connectivity in the subcortical regions of the brain that impact reactivity, while those ages 65 to 80 have greater connectivity in the prefrontal cortex, with less neural activity between the prefrontal cortex and other regions—suggesting that young adults may be more responsive to emotional stimuli, while older individuals tend to be less sensitive to these stimuli (and, in general, more content).

While this analysis suggests important ways emotional responses to external stimuli can change across the life span—and that older adults tend to have better emotional experiences than younger ones—it also identifies an important baseline that could help psychologists understand and identify aging-related brain disorders such as geriatric



depression and dementia.

“Connectivity research is setting the stage for understanding how brain connectivity is different in people who exhibit typical versus atypical behaviors,

which can both help psychologists treat these affective outcomes and help caregivers and family members understand what’s happening in their loved ones,” Lindquist said.

Lindquist is also studying the neural networks at play during episodes of anxiety, and she has found evidence that different connectivity patterns can produce the same experiences of anxiety.

In other words, people can have the same output but different neural pathways to produce it. Jessica Cohen, PhD, director of the Cohen Lab and an assistant professor in the Department of Psychology and Neuroscience at UNC Chapel Hill, and fellow researchers have made significant inroads to measuring these pathways by comparing resting brain activity in people who perform differently on various cognitive tasks. They found that resting patterns of brain connectivity change much more than previously understood, and in ways that are related to subsequent task performance (*Network Neuroscience*, Vol. 5, No. 1, 2021).

As scientists continue to study how brain connectivity relates to active cognition and behavior, “these findings offer the possibility that neural networks are more flexible and encode more detailed information in those who perform better,” said Derek J. Snyder, PhD, APA’s senior director for science strategic partnerships. “Overall, studies like these offer new insights on individual differences in brain plasticity across networks that process information and shape complex behaviors linked to well-being,” he said.

BRAINS CONVERGING

Understanding the human mind also requires understanding the social environment—what happens in the brain when we interact with other people. Using brain-imaging studies of pairs in social interactions, psychologists are now able to understand how social dynamics affect cognition, according to Thalia Wheatley, PhD, a professor of human relations at Dartmouth College.

“We’re constantly influencing and adapting to others, relying on one another to help us think,” said Wheatley. “We’ve been so focused as psychologists on mapping out the single brain, and now we’re beginning to understand what happens in the brain when two minds are dynamically engaged.”

A growing body of research has provided a foundation for newer, more complex research about the effects of social interaction on cognition. Uri Hasson, PhD, a professor of psychology and neuroscience at Princeton University, has studied how two brains temporarily converge during communication.

For example, in one 2017 study, Hasson and his colleagues suggested different interpretations of a short story to two groups of participants and used neuroimaging to understand how each interpretation affected their brain activity as they listened to the story. Listeners’ brain activity aligned depending on the context they received before the story, suggesting that information from news sources can shape people’s beliefs and essentially result in group-think (*Psychological Science*, Vol. 28, No. 3, 2017). “If one line is enough to make you similar to other people, imagine how what you are listening to all day does,” Hasson said.

What’s important, Wheatley says, isn’t just that taking in the same information can result in similar brain activity. Science also suggests people are naturally drawn to those who think like them. In one study, Wheatley and colleagues found that friends shared similar brain activity (*Nature Communications*, Vol. 9, No. 332, 2018). “The further out you go in a person’s social network, the more dissimilar people’s minds are,” she said.

Wheatley says future work could help psychologists understand not only the importance of conversation between peers, but how couples or parents and children interact. In a 2020 study, Hasson, Wheatley, and colleagues showed participants ambiguous video clips and then had them interpret what they saw in groups. After a period of discussion, the researchers scanned the group and found group members’ brain waves were more synchronized, suggesting conversation can help align people’s brains.

While understanding when synchrony happens is an important piece of the puzzle, Wheatley says, research should also investigate other dynamics such as when people may want to diverge in their thought patterns, breaking synchrony to facilitate independent thought. This understanding not only will help researchers understand cognition but also could help clinicians in practice. “When we understand more about the hidden dynamics of conversation, there will be natural implications for talk therapy,” she said.

USING POLYGENIC RISK SCORES

Thanks to recent advancements in the field of genetics, psychologists are seizing on new opportunities to study the specific genes associated with susceptibility for certain behaviors and, more important, how to use this knowledge to help people.

Even 20 years ago, psychologists referred to a now outdated form of genetic paneling called candidate-gene paneling, which identified individual genes that could predict people’s behaviors. “We thought then, by focusing on just one specific gene rather than a constellation of genes, that if you show expression on a particular candidate gene related to serotonin, you’re more likely to get depressed,” said Daniel S. Shaw, PhD, a professor of psychology at the University of Pittsburgh.

A more comprehensive approach to research known as genome-wide association studies uses algorithms to study the entire genome and identify genes that could contribute to specific behaviors using a scoring model called polygenic scoring, which means psychologists have more basis for understanding risk factors that contribute to hereditary behavioral patterns.

Jinni Su, PhD, an assistant professor of psychology at Arizona State University, says psychologists have been



Understanding the human mind also requires understanding the social environment—**what happens in the brain when we interact with other people.** Using brain-imaging studies of pairs in social interactions, psychologists are now able to understand how social dynamics affect cognition.

combining their knowledge about the impact of environment on behavior with these polygenic risk scores to help people develop better coping mechanisms.

“The idea that both genes and the environment contribute to complex psychosocial outcomes is not new,” Su said. “Polygenic scoring is a new method that can help psychologists characterize people’s genetic predispositions toward certain behaviors and help us address questions about environmental factors that could exacerbate or lessen that genetic risk.”

For example, Shaw and his colleagues conducted a randomized controlled study to understand how an 8-session, family-based intervention for children ages 2–10 (called the Family Check-Up) might help those with genetic risk factors for aggressive behavior. While untreated children with high genetic susceptibility showed the highest levels of aggressive and oppositional conduct during childhood and adolescence, those receiving the Family Check-Up showed much lower levels. These results suggest that children who are genetically sensitive to adverse

environmental influences may benefit the most from early interventions (*Development and Psychopathology*, Vol. 31, No. 5, 2019).

Su’s work focuses on genetic and environmental influences on alcohol use disorder, which usually occurs in the teen or adult years. Her studies that show how a genetic predisposition toward alcohol abuse manifests in youth enable families to recognize the signs and respond with evidence-based interventions that can prevent progression of the disorder.

Su found in a study published in 2021 that people with a genetic propensity for alcohol use disorder are more likely to have sensation-seeking personality traits, and that social support can prevent those traits from developing into problem drinking (*Journal of Abnormal Psychology*, Vol. 130, No. 5, 2021). This is consistent with earlier research that found that individuals who have a higher polygenic risk score for alcohol dependence are less likely to abuse alcohol if they are in a Family Check-Up intervention group (Kuo, S. I., et al., *Prevention Science*, Vol. 20, No. 7, 2019).

“Knowing how the genetic risk for alcohol manifests can help us work with sensation seekers and help them find healthy ways to channel their predisposition,” said Su.

In the future, Shaw hopes to see more diverse genetic risk scores—currently, psychologists rely on scoring developed using data from primarily White participants—and further studies that measure genetic susceptibility for other attributes and behaviors. He also hopes geneticists and neuroscientists can work together to more accurately link specific genetic profiles to individual differences in activation or volume in specific areas of the brain. “For example, polygenic risk scores capturing impulsivity could be linked with the frontal limbic system, so it makes sense a person would be impulsive,” he said. ■

Women's Workforce Losses

The COVID-19 pandemic has pushed millions of women out of the workforce, but psychology can help **BY REBECCA A. CLAY**



The pandemic has dealt a significant blow to women in the workforce. ¶ The majority of pandemic-related job losses have been experienced by women, according to a 2021 report from the National Women's Law Center. Since February 2020, the report notes, women in the United States have lost more than 5.4 million net jobs. Globally, women's employment dropped by 4.2% between 2019 and 2020, compared with 3% for men, a 2021 policy brief from the International Labour Organization found. Women researchers aren't immune to the pressures. Women represent only a third of the authors who have published COVID-related papers, with one possible factor being that lockdowns are forcing women researchers to juggle competing demands (Pinho-Gomes, A.-C., et al., *BMJ Global Health*, Vol. 5, No. 7, 2020).

PBNJ PRODUCTIONS/GETTY IMAGES

Even as the economy rebounds and some sectors face labor shortages, millions of women are continuing to stay home.

The impact of this workforce exodus will be long-lasting, said Eden King, PhD, a professor of psychology at Rice University and past-president of APA's Div. 14 (Society for Industrial and Organizational Psychology).

Now, King and other industrial and organizational (I/O) psychologists are researching—and speaking out on—ways to bring women back into the workforce and keep them there.

“Opting out” isn’t the reason most women have left their jobs, King emphasized. The oft-used phrase perpetuates the idea that work is optional for women—that their income is secondary, or even extra, instead of a bedrock of support for children, spouses, and older parents. Instead, she said, insidious societal messages that women should be mothers and that mothers should put their families first are helping to keep women home. “Instead of opting out,” said King, “women are being pushed out.”

In addition to these messages, caregiving challenges brought on by school and day care closures, quarantines, and sick family members have also played a key role in forcing women from the workforce, said Kristen Shockley, PhD, an associate professor of psychology at the University of Georgia.

In a study of how families are managing responsibilities during COVID, Shockley and colleagues found that couples are falling back into traditional gender roles (*Journal of Applied Psychology*, Vol. 106, No. 1, 2021). While some families came up with egalitarian childcare strategies, such as alternating days or shifts, in almost 37% of the families, women handled most or all of the childcare. “Something has to

give,” said Shockley. And given the pay gap that leaves women often making less than their male counterparts, she added, it’s often the woman who gives up paid employment to take on that caregiving.

Being forced to leave jobs to become “COVID-induced homemakers” can be a mental health challenge, said clinical psychologist and career therapist Angelica Perez-Litwin, PhD, founder and chief executive officer of Lumin, a group therapy practice in Greenville, South Carolina. In addition to anxiety, isolation, and other mental health issues, marital or relationship problems can result from women losing their status as workers. For many women, said Perez-Litwin, financial power struggles crop

up since they can no longer contribute equally to the household finances.

“Psychologists can help women express their frustration, fears, and overwhelm ... and listen to and validate their challenging experiences,” said Perez-Litwin. Interventions like cognitive behavioral

therapy can also help women reframe challenges and provide coping skills to reduce distress. For women whose health insurance has disappeared along with their jobs or for whom therapy is no longer affordable, local community health clinics offer reduced rates. But even friends and family members, support groups, and Facebook communities of women who have left the workforce can help, said Perez-Litwin. “Just sharing how they feel and what they are going through with someone they trust can be therapeutic,” she said.

Psychologists should also be advocates for working women, said Tammy Allen, PhD, a psychology professor at the University of South Florida. This isn’t a problem that individual families alone can solve, she said. What’s needed

is access to affordable childcare and paid leave. “The pandemic really exposed just how fragile the infrastructure is that enables women to participate in the workforce,” she said. “When that infrastructure broke down, we saw women leave the workforce in droves.”

To inform policy changes, Allen helped develop a list of short-term strategies for keeping women in the workforce (National Academies of Sciences, Engineering, and Medicine, 2021). The report calls on state and local decision-makers to use federal funds to mitigate COVID’s impact on women workers while laying the groundwork for longer-term improvements. Two areas are key, said Allen and her colleagues: supporting caregivers via financial help, improved childcare infrastructure, and family-supportive policies and supporting workforce development via training programs for women, greater access to male-dominated jobs, and mental health services.

Advocating for the most vulnerable working women is key, said Marc Cubrich, an I/O psychology doctoral candidate at the University of Akron (*Industrial and Organizational Psychology*, Vol. 14, No. 1–2, 2021). “In the United States, nearly half the workforce are considered precarious or low-wage workers, and women and racial and ethnic minorities are disproportionately represented,” said Cubrich. “That economic tenuousness, unreliable wages, and lack of benefits make simply getting by so difficult.”

Instead of continuing to focus overwhelmingly on white-collar workers, Cubrich said, psychologists—especially I/O psychologists—should instead include low-income and precarious workers in their research, ensure employee selection systems are unbiased, develop training programs to help workers get better jobs, and advocate for better wages and benefits for all workers. ■

Data collected during the pandemic show that women are not simply “opting out” of their jobs, but instead are being forced out.

Psychologists are working to address students' mental health in schools amid a significant shortage of children's mental health resources.



Children's Mental Health Is in Crisis

As pandemic stressors continue, kids' mental health needs to be addressed in schools

BY ASHLEY ABRAMSON

As the United States approaches 2 full years of the COVID-19 pandemic, mental illness and the demand for psychological services are at all-time highs—especially among children. While some children benefited from changes like remote learning, others are facing a mental health crisis. Prior to COVID-19, Centers for Disease Control and Prevention (CDC) data found 1 in 5 children had a mental disorder, but only about 20% of those children received care from a mental health provider. Whether kids are facing trauma because of child abuse or loss of a family member or everyday anxiety about the virus and unpredictable routines, they need even more support now—all amid a more significant shortage of children's mental health resources.

In a 2020 survey of 1,000 parents around the country facilitated by the Ann & Robert H. Lurie Children's Hospital of Chicago, 71% of parents said the pandemic had taken a toll on their child's mental health, and 69% said the pandemic was the worst thing to happen to their child. A national survey of 3,300 high schoolers conducted in spring 2020 found close to a third of students felt unhappy and depressed much more than usual.

Mental health crises are also on the rise. From March 2020 to October 2020, mental health-related emergency department visits increased 24% for children ages 5 to 11 and 31% for those ages 12 to 17 compared with 2019 emergency department visits, according to CDC data (Leeb, R. T., et al., *Morbidity and Mortality Weekly Report*, Vol. 69, No. 45, 2020).

Emergency visits could be mitigated with more widespread outpatient care, but even before the pandemic, kids often had to wait months for appointments (Cama, S., et al., *International Journal of Health Services*, Vol. 47, No. 4, 2017). Only 4,000 out of more than 100,000 U.S. clinical psychologists are child and adolescent clinicians, according to APA data. School psychologists are also in short supply, leaving kids without enough support at school. The National Association of School Psychologists (NASP) recommends a ratio of 1 school psychologist per 500 students; current NASP data estimate a ratio of 1 per 1,211 students.

The pandemic has also exacerbated existing disparities in mental health services. A 2020 technical report from the University of Massachusetts Boston and University of Massachusetts Amherst found that students who needed access to school-based services the most, particularly those with lower socioeconomic backgrounds, had lower rates of counselors and school psychologists in their districts.

While federal funding has provided schools with money to support students' well-being, psychologists have been seeking additional long-term solutions to address the mental health problems revealed and exacerbated by the pandemic, from building mental health into school curricula to training teachers in prevention strategies to support students based on psychological science.

Here are some of the most notable ways psychologists have worked to address students' mental health and what's ahead.

Bringing mental health into the classroom. The American Rescue Plan Act, passed in March 2021, included \$170 billion for school funding, and many schools used the funding to hire mental health workers, including psychologists. Other federal and state funding is being allocated toward training more psychologists. For example, in Nevada, which has historically ranked last in U.S. mental health, the University of Nevada, Las Vegas, received a grant to train school clinicians in urban diversity and social justice, and Nevada State College received funding to create a new program to train school mental health clinicians, including psychologists.

While the field of psychology recognizes a shortage of mental health services for kids, addressing those needs may not be a realistic solution until the workforce grows. Relying on temporary funding to hire permanent staff isn't financially sustainable

for lower-income districts, said Kenneth Polishchuk, APA's senior director for congressional and federal relations. As a result, Polishchuk said, many schools are hiring mental health providers on a short-term basis, as well as taking a preventative approach focused on training teachers in psychological principles.

Psychologists in some districts are training teachers in basic social and emotional skills to help students cope with stress and anxiety in real time, said Kathryn H. Howell, PhD, an associate professor of child and family psychology at the University of Memphis and chair-elect of APA's Committee on Children, Youth and Families. Howell said equipping kids with coping skills in the classroom can prevent strain on school psychologists while also improving students' ability to learn.

"As psychologists, we don't just want to bring in interventions that only we as experts can deliver," Howell said. "We need to make it sustainable by teaching those on the front lines how to equip kids with the skills they need to thrive."

Some teachers are incorporating formal mental health lessons into their curriculum with help from psychologists. New York state requires basic mental health education in health classes, and Peter Faustino, PsyD, a school psychologist in Scarsdale, New York, said he's been receiving requests from teachers for help incorporating pandemic-relevant topics like anxiety, trauma, and warning signs of suicide into their classes. Other schools, he said, are investing in social and emotional health training programs for staff, such as Yale University's RULER program, which teaches school leaders and teachers how to equip students with emotional intelligence skills.

Training teachers to address trauma. Along with more minor mental and behavioral health concerns, teachers are facing an unprecedented

number of students with trauma, said Laurie McGarry Klose, PhD, president of NASP and director of the School Psychology Program at Trinity University in San Antonio, Texas. And many teachers don't feel equipped to handle their students' struggles: A 2020 survey by the New York Life Foundation and American Federation of Teachers found that only 15% of educators said they felt comfortable addressing grief or trauma tied to the pandemic.

As a result, psychologists are finding new ways to share their expertise with school personnel. For example, Samuel



Interventions that can be used by teachers on the front lines are helping to expand coverage.

Song, PhD, a professor of school psychology at the University of Nevada, Las Vegas, and president of APA's Div. 16 (School Psychology), is working on a grant with colleagues to deliver a four-part web-based curriculum on trauma-informed practices. Such programs can help teachers identify signs of trauma in students and also cope with their own trauma, which Klose says are equally important. Teachers are more likely to dismiss trauma-driven behaviors as belligerence when they're under strain, so with proper resources and training, they can better identify kids who are struggling and route them to appropriate support services within the school system.

Mental Health Primers, developed by the Coalition for Psychology in Schools and Education, also provide information for teachers to identify behaviors in the classroom that are symptomatic of mental health and other psychological issues, with the goal of directing teachers to appropriate resources for their students.

"We know one-on-one therapy won't be possible for every kid who's struggling, so we need a multipronged approach to help build the capacity of teachers and staff to support kids in the classroom setting," said Melissa Pearrow, PhD, a professor of counseling and school psychology at the University of Massachusetts Boston.

Resilience is built outside the classroom, too. Howell said psychologists and graduate students from her department at the University of Memphis are also working with local community centers to train leaders in emotional health principles. "We want to help provide mentors that can be present in kids' lives beyond their parents, who are already dealing with a lot," she said. "We have the expertise and scientific background, and they have expertise in working directly with families and systems, so how can we pair our expertise and learn from each other?"

Ensuring long-term resilience. While short-term crisis funding has helped many communities and schools hire mental health professionals and develop related programs, psychologists and policymakers continue to advocate for more permanent solutions. In a September 2021 address to the House Energy and Commerce Subcommittee on Oversight and Investigations, APA CEO Arthur C. Evans Jr., PhD, encouraged Congress to consider long-term investments in states' and school systems' mental health workforces and infrastructures. In October 2021, the Biden administration and U.S. Department of Education released new

ADVOCACY AND ACTION

ADDRESSING MENTAL HEALTH AROUND THE COUNTRY

From providing mental health days to increasing resources, cities and states are taking action in schools.

■ **ILLINOIS** Under a new law, public school students in the state will be allowed to take 5 mental health days per school year, starting in 2022. In March 2021, Chicago Public Schools announced a \$24 million plan to invest in mental health and trauma support programs for students and staff.

■ **MASSACHUSETTS** The state is aiming to pass legislation called the Thrives Act to establish an advisory council that will help implement behavioral health promotion, prevention, and intervention services in school districts.

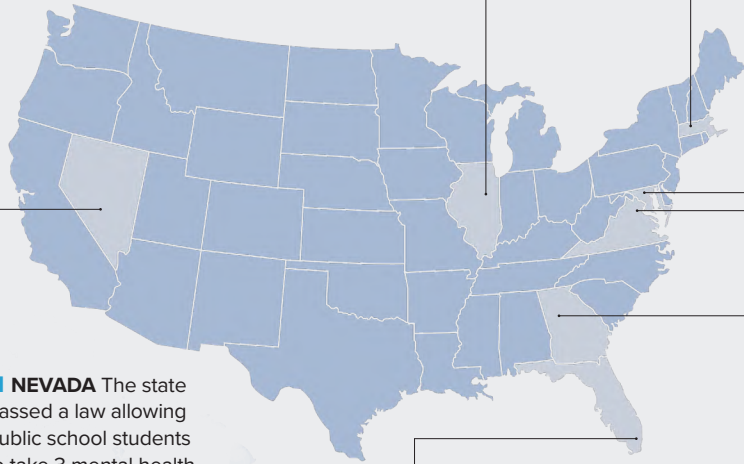
■ **MARYLAND** A new public-private partnership, Project Bounce Back, will direct \$25 million from the CARES Act to bring additional counselors and psychologists into schools and expand Boys & Girls Clubs to every Maryland county.

■ **VIRGINIA** Alexandria City Public Schools is redirecting funds from school police to mental health and mentorship programs.

■ **GEORGIA** Atlanta Public Schools plans to screen more than 30,000 pre-K to 12th grade students on their social-emotional behavior and has trained staff in trauma-informed practices.

■ **NEVADA** The state passed a law allowing public school students to take 3 mental health days per school year.

■ **FLORIDA** Miami-Dade County Public Schools provided staff with social-emotional learning and mental health awareness training and hired 45 new mental health coordinators.



guidance for schools to better help students' mental health needs.

Several bills could help protect kids' mental health in the long term. President Biden proposed an additional billion dollars to procure health care professionals—including mental health professionals—in schools. As of November 2021, the bill has passed in the House and will soon go before the Senate.

Also as of November 2021, bipartisan lawmakers are working to pass the Student Mental Health Helpline Act, which would create a grant program to support existing and promote new state-wide student mental health and safety helplines. The Comprehensive Mental Health in Schools Pilot Program Act, a

bill referred to the House Committee on Education and Labor in May 2021, would provide resources for low-income schools to integrate social and emotional learning and evidence-based, trauma-informed practices into all aspects of the school environment. Also in May 2021, the House passed the bipartisan Mental Health Services for Students Act, which would build partnerships between schools and community-based organizations to provide school-based mental health care for students. It now awaits consideration by the Senate.

Until new laws go into effect, psychologists are committed to finding new ways to address children's mental health, not only for their own well-being but for the

common good. "It's not only the right thing to do to make sure people can have as full a life as they possibly can," said Alan Leshner, PhD, the former director of the National Institute on Drug Abuse and former deputy and acting director of the National Institute of Mental Health, who has recently turned his attention to student mental health as a member of the National Academies of Sciences, Engineering, and Medicine Committee on Mental Health, Substance Use, and Wellbeing in STEMM Undergraduate and Graduate Education. "Young people are critical to the future of society, so it's in society's interest to make sure we don't lose the talent youth could contribute to a set of problems that can be alleviated." ■

Burnout and Stress Are Everywhere

Burnout and stress are at all-time highs across professions, and among already strained health care workers, they are exacerbated by the politicization of mask-wearing and other unrelenting stressors

BY ASHLEY ABRAMSON

From longer work hours to increased demands at home, the COVID-19 pandemic introduced new stressors to nearly every domain of life. As the world heads into the 3rd year of the pandemic, these stressors have become persistent and indefinite, heightening everyone's risk of burnout. Anyone exposed to chronically stressful conditions can experience burnout, but human services employees, first responders, and those in

educational services are at an even higher risk, especially as the public continues to resist COVID-19 prevention measures.

According to the World Health Organization, burnout is a syndrome resulting from workplace stress that has not been successfully managed. It's characterized by three dimensions: feelings of energy depletion or exhaustion, increased mental distance from one's job or feelings of negativism or cynicism related to one's job, and reduced professional efficacy (World Health Organization, 2019).

As in 2020, American workers across the board saw heightened rates of burnout in 2021, and according to APA's 2021 Work and Well-being Survey of 1,501 U.S. adult workers, 79% of employees had experienced work-related stress in the month before the survey.

Nearly 3 in 5 employees reported negative impacts of work-related stress, including lack of interest, motivation, or energy (26%) and lack of effort at work (19%). Meanwhile, 36% reported cognitive weariness, 32% reported emotional exhaustion, and an astounding 44% reported physical fatigue—a 38% increase since 2019.

Some occupations are more vulnerable than others to the effects of burnout. Christina Maslach, PhD, a professor emerita of psychology at the University of California, Berkeley, and a core researcher at the university's Healthy Workplaces Center, said teachers and health care workers are uniquely prone to high rates of burnout, as was the case even before the pandemic.

"We've known people in these

occupations have always had higher rates of burnout, but it's been so much harder to keep up with the demands during a pandemic in caretaking professions," Maslach said.

While APA's data suggest persistent workplace stress has contributed to reduced efficacy and exhaustion, Michael P. Leiter, PhD, an honorary professor of organizational psychology at Melbourne's Deakin University and an organizational psychologist who studies burnout, said he's noticed increased cynicism, too, another classic sign of burnout.

Issues like the politicization of masks and vaccines and feelings of lack of support from the government and workplaces have caused workers—especially those in public-facing jobs—to become cynical about their jobs and about the public in general. "This kind of cynicism is powerful because it undermines the people's feelings about the value of their work, which can help motivate them during hard times," Leiter said.

Because these pandemic-related stressors likely won't stop anytime soon, stress-reducing measures should be top



Teachers and health care workers often face high levels of workplace stress, but the pandemic escalated many into a state of burnout.

of mind for employers and legislators alike. “As demands increase, organizations need to focus on maintaining balance, taking things off the plate when they add something new,” Maslach said. That’s especially important in health care settings, she added, where attrition rates are especially high.

Some organizations are already responding, sometimes with the help of psychologists. A June 2021 article in *The Washington Post* highlighted that companies of varying sizes and in many industries are finding new ways

to ensure employee well-being, from increased time off to offering such services as after-school tutoring and childcare.

In health care, psychologists continue to explore how to create better balance for front-line workers. Psychologist Craig Rooney, PhD, program director of the Office of Clinician Well-Being at the University of Missouri School of Medicine, is working to launch a physician leadership development program that will hopefully prevent downstream effects

of burnout in health care settings. Other health care organizations can adopt a similar approach to promote resilience among clinicians, especially as hospitals across the country continue to face ongoing strain.

Leiter hopes workplaces across the board will continue to pay attention, starting with listening to employees about their needs and responding with flexibility. “Employers could reduce the propensity for burnout, but rigidity will only cause more burnout in workplaces,” he said. ■



Climate Change Intensifies

Psychologists are learning how to bolster the health of humans and the environment as the planet warms

BY HEATHER STRINGER

NOAH BERGER/AP



In the past decade, researchers have found increasing evidence that climate change affects people's psychological well-being, but most of the studies about climate anxiety—distress associated with the warming planet—have been qualitative and limited to individual countries. Eager to gather quantitative, global data on a larger scale, social psychologist Susan Clayton, PhD, helped launch a study in May 2021 involving 10,000 people ages 16 to 25 living in 10 countries. She was surprised by the gravity of the findings.

Nearly 60% of the participants were “extremely” or “very” worried about climate change, and more than half believed that humanity was doomed and that they would have fewer opportunities than their parents. Almost 40% said they were hesitant to have children. More than 60% said they felt their governments are failing future generations and lying about the effectiveness of their actions to reduce climate change. Although there was variability among different countries, in general, these sentiments were consistent across different parts of the world—including the United States, Nigeria, India, France, and Brazil—as young people are confronted with a variety of environmental changes, including more frequent and destructive wildfires and storms, droughts, and heat waves (*The Lancet Planetary Health*, in press).

“We are concerned about the findings,” said Clayton, a psychology professor at the College of Wooster in Ohio. “Negative emotions and pessimistic beliefs can be a source of stress that leads to mental health problems such as anxiety and depression.” Nearly half of the participants reported that their feelings about climate change negatively affected aspects of their daily lives, such as sleeping, socializing, school, and work.

The haunting remains of a neighborhood burned by the 2021 Dixie Fire in California serve as a stark reminder of the physical and psychological toll of climate change.

Clayton is among a growing cadre of psychologists who are leveraging their expertise in human behavior to help people not only prepare for the consequences of climate change but also understand how to effectively influence communities to reduce their carbon footprints.

“Psychologists have a critical role in addressing this issue,” said Christie Manning, PhD, director of sustainability and an assistant professor in environmental studies at Macalester College in Minnesota. “People need to collectively change not only individual behavior but also the infrastructure, policies, and systems of everyday life. This will require all of us to fundamentally think differently about our place in the world and our connections to each other,” she said.

To increase awareness about the link between psychology and climate change, Clayton and Manning partnered with APA and the nonprofit organization ecoAmerica to release *Mental Health and Our Changing Climate*, 2021 edition. The report, which builds on the 2017 edition, chronicles increasing evidence of the mental health impacts of climate change,

particularly among groups already facing discrimination. It also details how individuals, communities, and psychologists can promote resilience.

New studies are showing that higher temperatures are associated with increased risk of suicide and mental health–related hospital admissions (Thompson, R., et al., *Public Health*, Vol. 161, 2018), and each degree of increased temperature elevates the risk of mental health–related mortality and morbidity, with substance-use disorders as the highest mortality risk (Liu, J., et al., *Environment International*, Vol. 153, 2021). Other researchers who studied the social media posts of 43 million users in China found that climatic factors influenced users’ expressed sentiments online, with females and people in poorer cities being more negatively affected by unpleasant temperatures than males and people living in more affluent cities (Wang, J., et al., *One Earth*, Vol. 2, No. 6, 2020).

SLOWING CLIMATE CHANGE

Studies also reveal the inequities of

climate change, namely that the people with the highest carbon footprints are usually those who are least likely to experience the consequences of global warming. The top 10% of income earners globally are responsible for about 50% of total carbon emissions because they are more likely to use air travel, multiple cars, larger homes, and other carbon-emitting luxuries (Karthi, S., et al., *The Carbon Inequality Era*, Oxfam, Stockholm Environment Institute, 2020). Finding ways to change individual consumer behavior among high-income earners may be valuable, but there is another important way this segment of the population could accelerate decarbonization: through their access to financial and social resources, said psychologist Kristian Nielsen, PhD, of the University of Cambridge.

“These individuals can influence greenhouse gas emissions through their position in society,” said Nielsen, whose recent paper in *Nature Energy* outlines this strategy. High socioeconomic status individuals, for example, often have a significant amount of money in investments, and they could transfer this money from fossil fuel company funds to low-emissions company investments. These influencers are also often in leadership roles within companies, and they could direct their organizations to create supply chain carbon emission requirements or reduce the amount of travel expected of employees for business events. High-income leaders may also have more access to policy experts who are making decisions that could reduce greenhouse gas emissions.

In addition to exploring who could accelerate decarbonization efforts, psychologists are also looking at how people make decisions that affect climate change. In the United States, for example, opinions about the causes of climate change and policies to address the problem can vary significantly



Family photos show water damage from Hurricane Ida in 2021. Studies show a desire to leave a positive legacy engenders support for environmental protections.



Shayanne Summers holds her dog Toph in an evacuation center tent camp in Oregon after surviving the September 2020 Riverside Fire. Studies of wildfire victims show that social support helps people protect themselves before and during fires.

between Democrats and Republicans, but psychologists are tapping into inherent similarities between historically divided groups. People share a sense of responsibility toward future generations, regardless of their political or religious affiliations, family income, or education level, according to one recent study (Syropoulos, S., & Markowitz, E. M., *Journal of Environmental Psychology*, Vol. 76, 2021). This sense of intergenerational responsibility engenders pro-environmental attitudes, such as support for policies that would fund renewable energy and increase taxes for fossil fuel companies.

“Across multiple studies, we have found that most people possess a strong desire to build a positive legacy,” said Ezra Markowitz, PhD, one

of the study’s authors and a professor in the Department of Environmental Conservation at the University of Massachusetts Amherst. “The challenge is bringing these feelings to the surface when they are making decisions, because people often discount future benefits relative to present costs.” Helping people access their sense of gratitude for the sacrifices made by past generations is one way to increase willingness to take on personal costs that will benefit future generations, according to another study Markowitz and his colleagues conducted (*Journal of Environmental Psychology*, Vol. 72, 2020).

For some countries, this may be a particularly good time to accelerate sustainable behaviors, said environmental psychologist Taciano Milfont, PhD,

of the University of Waikato in New Zealand—a nation that has had significant success in combating COVID-19. In a recent survey of 15,000 New Zealanders, Milfont found evidence that the pandemic increased political efficacy—that is, people’s belief that they can influence government decisions. Although the survey did not explore the reason for the shift, Milfont suspects that following public health advice to wear masks, socially distance, and comply with lockdowns increased the public’s confidence in its ability to affect countrywide decisions.

This heightened sense of political efficacy among New Zealanders in turn amplified respondents’ pro-environmental attitudes and actions, such as support for a government subsidy for public transportation. “People need to

have intrinsic motivation to take actions that help the environment, and one of the predictors of intrinsic motivation is perceived efficacy,” Milfont said.

ADAPTING TO WEATHER EXTREMES

Psychologists are also leveraging their understanding of human behavior to help people protect themselves as they encounter more severe weather conditions. While many studies have documented how social support increases resilience after a natural disaster, Gabrielle Wong-Parodi, PhD, an assistant professor of Earth system science at Stanford University, was eager to answer a different question: Does social support help people protect themselves before or during these events?

Through interviews with people who were affected by major wildfires in Northern California during the past 3 years, Wong-Parodi discovered that social factors influenced reported willingness to wear a face mask during wildfires to reduce the risk of smoke exposure. People who talked to neighbors, relatives, and others in their communities to help

them navigate the uncertainty of the wildfire smoke risk were more likely to wear a mask.

Also, those who gave face masks to vulnerable people they knew—such as children or elderly parents—may have influenced behavior on a larger scale (*Climate Risk Management*, Vol. 34, 2021). “People may be undecided about wearing a mask, but if someone in their social network provides them with one, this kind of interpersonal support may relate to or influence the creation of new social norms,” Wong-Parodi said.

An individual’s mental health status is another important factor that relates to protective behavior decisions during weather extremes, Wong-Parodi said. She surveyed more than 500 people living in southern states who were impacted by Hurricane Matthew in 2016 and found that people with lower mental health and self-efficacy tended to prepare to protect themselves from the hurricane, such as by getting extra gasoline, food, or an AM/FM radio with spare batteries, regardless of whether they were in danger. These preparations that are not proportional to, or commensurate with, their risk could

actually increase their worry and stress, according to Wong-Parodi (*Weather, Climate, and Society*, Vol. 10, No. 4, 2018).

“It’s important that we pay attention to mental health as climate hazards increase in the coming years because this could affect people’s ability to assess their level of risk and respond appropriately,” she said.

MORE HELP NEEDED

Although interest is growing among psychologists to address the climate change crisis, those who are at the forefront of this work hope to see a broader array of psychologists tackle this issue. “For example, I/O [industrial and organizational] psychologists can help organizations incorporate sustainability into their core practices,” said Manning. “And clinical and counseling psychologists can inform our understanding of how to help people cope with climate anxiety.”

To strengthen the field’s role in addressing the crisis, APA recently gathered a team of 12 experts with backgrounds in psychology, epidemiology, law, medicine, and other fields. This Task Force on Climate Change reviewed APA’s work on the issue and in February plans to make recommendations to the Council of Representatives for goals and future initiatives, including the organization’s own sustainability practices and use of energy.

Even though there are more data now than ever about the psychological implications of climate change and the role of human behavior in forging solutions, experts agree that there are still many unanswered questions.

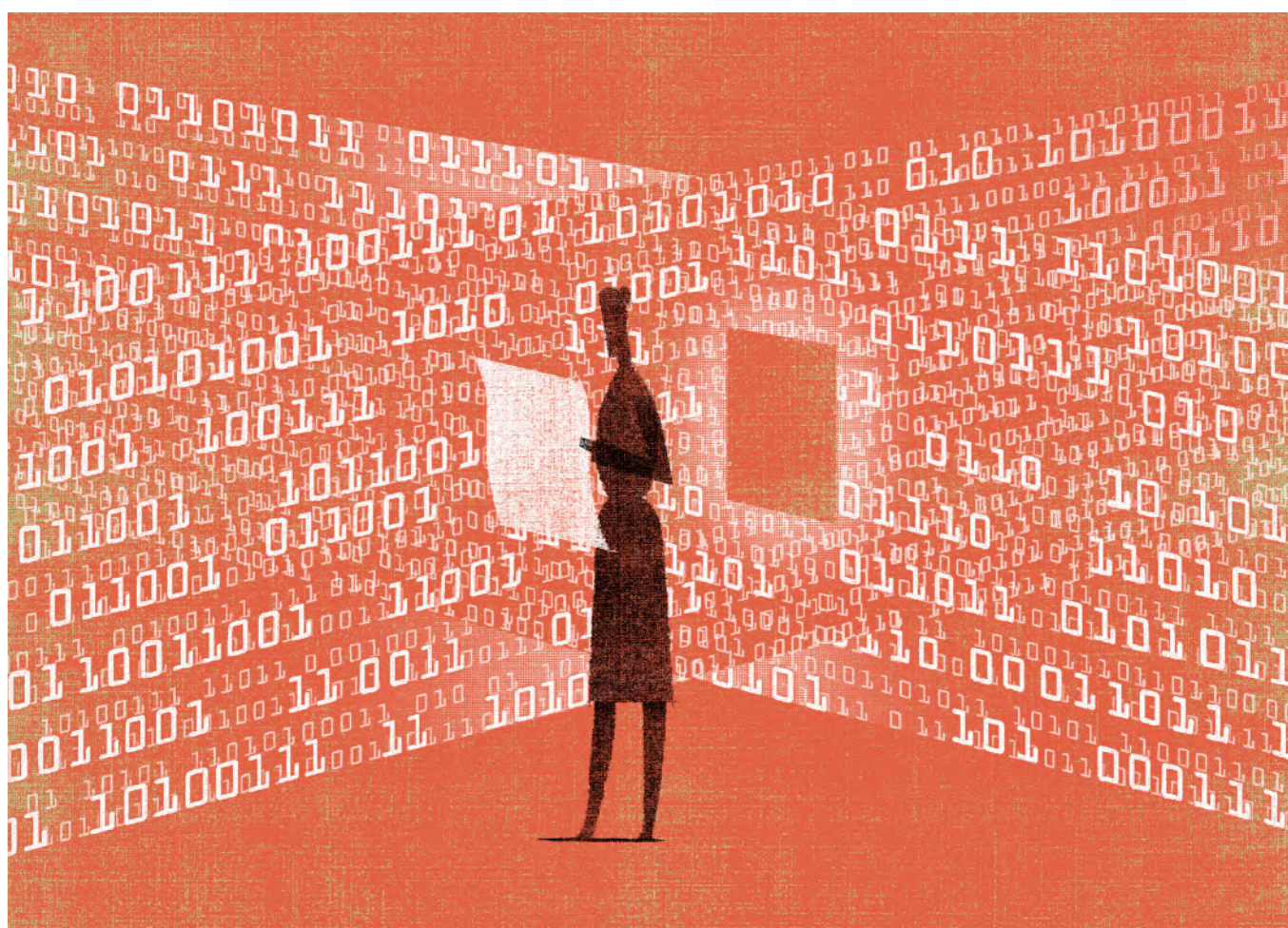
“What leads people to develop climate anxiety and what are the best ways of helping them?” said Clayton. “How can we educate our children about the reality of the problem without scaring them? These are just a few of the questions, and we need every subfield of psychology available to help us find answers.” ■



Interpersonal support, as shown by this couple in the aftermath of Hurricane Ida in August 2021, bolsters mental health and resilience to climate tragedies.

Big Data Ups Its Reach

More and more psychologists are incorporating big data techniques into research and related business ventures **BY TORI DEANGELIS**



A growing number of psychologists are learning how to construct and make use of large data sets, or “big data,” to gain new insights into human behavior. To do that, they’re learning analytic techniques and applying tools that go hand in hand with big data, in particular artificial intelligence (the simulation of human intelligence processes by machines) and machine learning (computers’ ability to learn from data without being explicitly programmed to do so).

For behavioral scientists, big data can come from a wide variety of sources, ranging from traditional large-scale databases to medical records to unstructured data gleaned from cell phones, social media, and wearable technology.

These data and related methodologies allow researchers to study more types of constructs and variables than ever before and to be much more exploratory than traditional methods allow—to take a speculative approach to generating hypotheses rather than testing given ones, said Sean Wojcik, PhD, a social psychologist and senior data scientist at the news media company Axios who uses and studies these techniques.

“There are a lot of benefits for researchers to become adept in these skill areas, because there’s so much to be learned from these data,” he said.

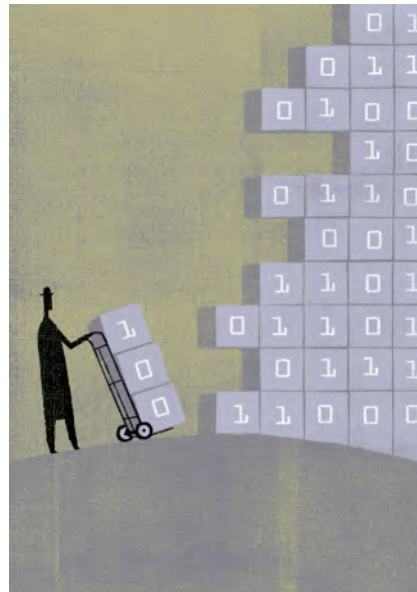
An example is the National Institutes of Health’s (NIH) Adolescent Brain Cognitive Development (ABCD) Study, the largest long-term study of brain development and child health in the United States.

The study “is collecting a vast amount of data from participants through self-report questionnaires, cognitive testing, brain imaging, and biospecimens,” said ABCD Director Gayathri Dowling, PhD, who works for the National Institute on Drug Abuse. “It is also bringing in data from sources like FitBit and cell phone apps as well as environmental data from existing data sets based on where participants live.”

“Together,” she said, “this rich data set will help us better understand the many different factors that influence developmental trajectories, from the individual to the family to the community and society.”

Studies like the ABCD Study exemplify how big data can be used with scientific and ethical integrity. ABCD overseers, for example, promote best practices for researchers, which include

the use of appropriate statistical models, ethical considerations for interpreting findings, and more. But for other ventures, including those in the commercial realm, big data’s promise sometimes eclipses its proper use and understanding, and in general there’s a lack of sufficient oversight in the area, those working in the area noted. Unresolved ethical issues in the mental health realm, for example, include concerns about respecting patient autonomy and privacy and ensuring equity.



For behavioral scientists,
big data can come from
a wide variety of sources,
ranging from traditional
large-scale databases
to medical records to
unstructured data gleaned
from cell phones, social
media, and wearable
technology.

“The very reason that private information is private in the first place is why it is likely to be so robustly associated with mental health functioning and therefore why it’s so helpful to researchers and mental health providers,” said Benjamin W. Nelson, PhD, a clinical research scientist at Meru Health, an online health care provider that uses big data techniques to provide evidence-based mental health services. “So there needs to be strong regulations and ethics around the use of these data.”

WHY THE BUZZ?

Concerns notwithstanding, big data methods are gaining support because of their potential to help scientists, including psychologists, improve on the accuracy and breadth of existing findings and unearth new ones. With these techniques, researchers can take large data sets and reveal complex associations, including nonlinear and interactive associations, said Arizona State University professor Kevin Grimm, PhD, who studies machine-learning techniques. With machine learning, for example, “you don’t have to specify much [about the associations or variables that you want to test] ahead of time—the model essentially learns the nature of the associations from the data,” he said.

These techniques can also enhance traditional studies, Grimm said.

“Once you’ve analyzed your data using traditional techniques, you can use machine-learning techniques to discover additional associations that you might not have been aware of,” he explained. “And that might lead to new hypotheses and theories, which could then be tested with a new set of data.”

Another potential benefit: helping to address psychology’s problem of replicability, Wojcik noted.

“There’s been a lot of discussion about the validity of many psychology studies that relied on smaller sample

sizes and about whether researchers are able to replicate some well-known effects,” Wojcik said. “With greater data volume, you can often have greater confidence that the effects you’re measuring are valid and reliable,” he said, “and that increases the likelihood that these data may generalize to larger populations or to new populations that you wouldn’t have studied otherwise.”

SEIZING OPPORTUNITIES

Given the potential, many psychologists are finding creative ways to use big data and related methodologies. At Axios, for example, Wojcik is using machine-learning techniques to analyze language patterns, with the aim of spreading news content to more people. Similarly, he worked for several years at Upworthy, a digital “positive storytelling” platform. There, in collaboration with the Gates Foundation, he used social and data science to help stories on global health, poverty, and other significant topics go viral.

Others are applying these techniques to long-standing areas of study, both for commercial purposes and to ramp up their findings on solutions to important issues. University of Oregon clinical psychology professor Nick Allen, PhD, a youth mental health researcher, for example, used big data analytics to address a common problem he saw in mental health care: that kids often experience mental health crises in between therapy sessions, when they’re most in need of help and providers are least available. With a team of programmers and data scientists, he figured out how to capture, via teens’ phone sensors, potential indicators of mental health problems between sessions, such as changes in sleep patterns, physical activity, and social interactions.

Eventually, that work led to the creation of Allen’s company, Ksana Health, which offers products that allow

researchers and mental health clinicians to integrate continuous monitoring of behavior into their projects and practices via cell phone data and big data analytics. The research software is already being widely used by researchers across the globe, including in the ABCD Study. The clinical software, being tested with select clinical partners, will be available early this year.

Nelson, meanwhile, is helping Meru Health use big data techniques with a team of research and data scientists to



Besides learning to work with big data sets, **big data analysis involves learning multiple techniques related to acquiring, managing, and analyzing those data.**

provide evidence-based care to thousands of people experiencing depression, anxiety, and burnout. Similar to Allen’s platform, Meru Health collects individualized program-engagement data and other self-report metrics to gather information on patient symptoms and treatment app use. In turn, this information helps Meru Health’s licensed therapists understand when to intervene with patients and provides patients with digital reminders related to their conditions, Nelson explained. Given big data’s role in this enterprise, using big data to improve daily patient interactions directly supports Meru’s ambitious goal “to treat 10 million lives by 2027,” he noted.

Basic researchers, too, are making the most of big data. Child and adolescent psychiatrist Armin Raznahan, MD, PhD, chief of the Section on Developmental Neurogenomics at the National Institute of Mental Health (NIMH), taps into large data sets such as the UK Biobank, the Healthy Brain Network, and the ABCD Study to analyze behavioral, genetic, and neuroimaging data to better understand how brain organization in healthy individuals varies as a function of sex, genotype, and behavior. He then uses those insights to shed light on risk factors for mental health difficulties.

Thanks to the NIMH’s Intramural Research Program, which provides statistical help to NIH researchers on big data analytics, Raznahan has been able to gather and study in-depth, multi-modal data on approximately 10,000 young people up to age 17. Recent findings from an analysis of more than 2,000 brain scans, for example, found strong evidence for sex differences in the volume of certain regions in the human brain—a finding that had been previously shown only in mice (*Proceedings of the National Academy of Sciences*, Vol. 117, No. 31, 2020). Those findings have

implications for our understanding of well-established sex differences in cognition, behavior, and risk for psychiatric illness, Raznahan noted.

One reason the findings are so trustworthy, Raznahan added, is that the researchers were able to compare their findings with thousands of images from an unrelated data set from the UK Biobank and found them highly consistent—another potential plus of big data.

GETTING ON BOARD

Whereas some psychologists are becoming more familiar with big data, for others it can seem like a dauntingly high mountain of new concepts and techniques to master. Besides learning to work with big data sets, big data analysis involves learning multiple techniques

related to acquiring, managing, and analyzing those data.

Fortunately, there's lots of help available for learning these techniques. For one thing, colleges and universities are offering more programs, initiatives, and even degrees in these areas. And although psychology departments don't always provide such courses, students can often take them in other departments "and really expand the potential of what they can do, as well as the tools they have available to them," Wojcik said. Learning programming languages such as Python, R, or SQL, for example, can be foundational support for this work, allowing for extremely rapid data collection, he noted.

Meanwhile, the online universe offers a wealth of training opportunities, including summer camps like

Neuromatch, Statistical Horizons, and Stats Camp, as well as trainings and certificate programs. You have to be ready to do a lot of learning on your own, as well, Grimm added—but there's plenty of community support on online forums to help troubleshoot problems that arise.

Whether psychologists take the plunge to learn these methods on their own or work in tandem with data collection experts, it's smart to take an interest because of big data's potential to improve research and the field at large, Wojcik said.

"As a psychologist, I discovered that there are really rich sources of meaningful behavioral data that are just as interesting, if not more so, than conventional survey data that I might have collected in the laboratory." ■

Southwestern Virginia Mental Health Institute

PSYCHOLOGY CAREERS WITH REWARDING RESULTS

Clinical Psychologist Opportunities

Nestled in the highlands of southwestern Virginia, SWVMHI, one of Virginia's nine behavioral health hospitals, seeks qualified candidates for clinical psychologist positions. A dynamic and values-driven facility, SWVMHI provides acute psychiatric and extended psychosocial rehabilitation for adult and senior age adults, with current openings on the Geriatric and Extended Rehabilitation Units. Clinical psychologists work independently as part of a multidisciplinary team, providing assessments, treatment and forensic evaluations. These positions are ideal for new graduates or experienced professionals who seek experience in the full range of treatment provision for individuals with serious mental illness. Excellent orientation and training is offered in-house with additional training in forensic assessments provided through the Institute of Law, Psychiatry, and Public Policy at UVA.

SWVMHI is located in the safe, family oriented community of Marion, Virginia, minutes from more urban areas. The region is known for its high quality of life, low cost of living, good schools, beautiful scenery, and abundant outdoor recreational opportunities.

Join Our Team and Enjoy These Benefits

- Moving & Relocation Sign-On Bonus
- Student Loan Repayment
- Additional Paid Time Off
- State Holiday Time Off
- Weekends Off
- Retirement Pension
- Excellent Benefits
- Investment Opportunities

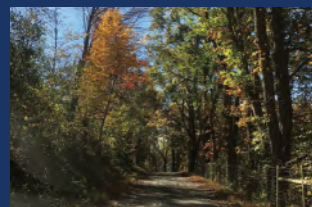
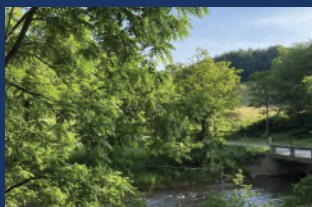
Apply online now at:

<https://virginiajobs.peopleadmin.com/postings/225491>

For more information about SWVMHI, visit our website at:

<https://swvmhi.dbhds.virginia.gov/swvmhi/>

You may also contact Human Resources Monday–Friday from 8:15 a.m.–5:00 p.m. at (276) 783-1204



Psychology's Influence on Public Health Messaging Is Growing

Psychologists are playing increasingly vital roles in medical and public health settings

BY ZARA ABRAMS



Two years after the first reported cases of COVID-19, civic leaders are already thinking about the next pandemic—and lessons learned during the frantic response to the coronavirus have led to a growing recognition that behavioral insights are a key piece of that puzzle. ¶ Now, input from psychologists, who are studying and applying insights on health messaging and behavior, is more important than ever and being recognized for its worth.

“The COVID-19 pandemic has demonstrated once again that integration of behavioral and communication science into public health programming is vital to disease control and prevention,” said psychologist Neetu Abad, PhD, a behavioral scientist in the Global Immunization Division at the U.S. Centers for Disease Control and Prevention (CDC).

When the pandemic struck, psychologists were among the first to respond. In April 2020, Jay Van Bavel, PhD, an associate professor of psychology and neural science at New York University, and his colleagues published

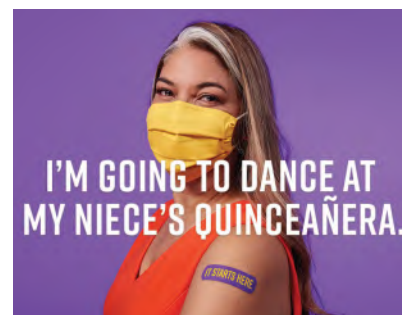
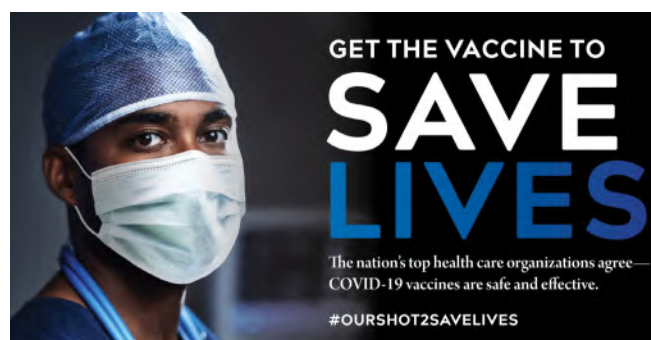
a summary of actionable social and behavioral findings related to health behavior, misinformation, and stress (*Nature Human Behaviour*, Vol. 4, 2020). Those findings built on earlier work in public health, including a prescient book by psychologist Steven Taylor, PhD, *The Psychology of Pandemics*, released in October 2019.

Psychologists also launched large-scale multinational studies measuring compliance with COVID-related health measures. Van Bavel, psychologist Tian Lin, PhD, of the University of Florida, and their colleagues found that young males in

well-developed countries were least likely to report complying with public health

guidance, suggesting a need for campaigns that target this demographic (*Social Science & Medicine*, Vol. 286, 2021).

Others have conducted research on vaccination messaging, finding that campaigns that emphasize hope, altruism, and other positive emotions are more effective than messages that stoke fear and anxiety (Chou, W. S., & Budenz, A., *Health*



Efforts to address vaccine hesitancy among key audiences have included campaigns such as McDonald's coffee cups featuring the “We Can Do This” slogan and a guide from Holy Cross Health that addresses vaccine worries.

NEW

Interactive Professional Development

The Interactive Professional Development program is APA's novel, interactive program that provides highly collaborative, engaging, and intensive dialogue on critical topics of contemporary significance. All workshops are offered LIVE and will not be recorded. Earn **3 CE credits** per workshop.

ONLY **20 SPOTS AVAILABLE** PER WORKSHOP

Featured presentations include:

Bruce Liese, PhD

Enhancing Your Psychotherapy Skills With Insights from Cognitive Science
February 18, 2022 at 1:00 pm ET

Erica H. Wise, PhD

Ethics and Self-Care: Fostering Joyful and Sustainable Professional Practice During (and After) a Pandemic
April 8, 2022 at 1:00 pm ET

Jordan Wright, PhD and Hadas Pade, PhD

Beyond Psychometrics: Interpreting Psychological Assessment Data Within Culture and Context
June 17, 2022 at 1:00 pm ET

Visit APA.ORG/ED/CE/RESOURCES for more information.

Full attendance at each CE workshop is required to receive CE credits; no partial credit is awarded.



AMERICAN
PSYCHOLOGICAL
ASSOCIATION



CONTINUING
EDUCATION
IN PSYCHOLOGY

Continuing Education
from your Association

HEALTH MESSAGING

Communication, Vol. 35, No. 14, 2020). Such pro-social messages appear to be particularly effective in rural areas, because people there feel that their behavior will have a clear impact on the community, according to a study by Dolores Albarracín, PhD, a professor of psychology, business, and medicine at the University of Illinois at Urbana-Champaign, and her colleagues (*PNAS*, Vol. 118, No. 1, 2021).

Psychological research has also been crucial in characterizing and combating the parallel “infodemic” of misinformation that has accompanied the spread of COVID-19. Early on, psychologists helped determine who was exposed to false information and conspiracy theories about the virus—and why those messages were so persuasive. Now, they’re delving into the nuances of health misinformation, finding that people with more trust in science can also easily be misled by false claims when they appear to be grounded in science (O’Brien, T. C., et al., *Journal of Experimental Social Psychology*, Vol. 96, 2021).

“Of course, trust in science is necessary, but we’re learning that it can also become a vulnerability,” said Albarracín, a coauthor of the study.

But psychologists aren’t just conducting research—they’re also working with

federal agencies and elected officials to translate those insights into action. At the CDC, Abad helps design and deploy interventions that address vaccine hesitancy on a global scale (for more on her work, see this month’s Conversation, on page 31). Van Bavel spoke to congressional staff and the White House about his findings, including how to tailor health messages for marginalized groups. And the National Academies of Sciences, Engineering, and Medicine (NASEM) has launched the Societal Experts Action Network, which unites behavioral experts to help inform decision-making around responses to COVID-19 and future pandemics.

“These committees are charged with analyzing data and models and providing a synthesis of scientific information,” said psychologist Baruch Fischhoff, PhD, a professor in the Department of Engineering and Public Policy at Carnegie Mellon University who has served on NASEM committees geared toward the equitable distribution of COVID-19 vaccines and rebuilding the interagency federal response to public health emergencies. “But the human behavior component—what people do with that information—is equally important. That’s where psychology can help.” ■

Telehealth Proves Its Worth

Psychologists are seeing the benefits of telehealth and hoping payers continue to support it

BY REBECCA A. CLAY



Even after the pandemic ends, telehealth appears poised to stay, according to APA's 2021 COVID-19 Practitioner Survey of U.S. psychologists who are either APA members or prospective members. ¶ A whopping 96% of psychologists who responded said that telehealth is effective therapeutically, and 97% said that it should remain post-pandemic. The number of clinicians using telehealth with at least some patients also continues to grow, from 33% in 2020 to 50% in 2021.

More clinicians practicing telehealth will lead to increased access to much-needed care. According to the survey, demand for psychological services has jumped over the past year. Forty-three percent of the psychologists surveyed reported an increase in their number of patients, and 68% reported that their waiting lists had grown since the pandemic's beginning.

One factor helping to eliminate barriers to meeting that demand is the Psychology Interjurisdictional Compact (PSYPACT). Amid the pandemic's turmoil, some college students returned home and families moved or temporarily relocated to less dense areas. Some practitioners were no longer able to provide services because their patients had moved outside their state of licensure. PSYPACT allows psychologists in participating jurisdictions to provide services across state lines, either via telepsychology or temporary in-person practice.

PSYPACT had a record-breaking year, said Janet Orwig, the program's executive director. Twenty-two states introduced PSYPACT legislation, 12

enacted legislation, and 2 more have bills pending. In total, 27 jurisdictions have enacted PSYPACT legislation.

The Association of State and Provincial Psychology Boards (ASPPB), which runs the E.Passport program—one of the prerequisites for authorization to participate in PSYPACT—has also expanded eligibility to allow psychologists who have practiced independently since 1985 based on a doctoral degree from a regionally accredited institution to participate.

TELEHEALTH PRACTICE BEYOND THE PANDEMIC

In the practitioner survey, about half of the respondents said that APA should continue to support telehealth. Advocacy is already under way to ensure that the telehealth gains made during the pandemic aren't lost, said Connie Galiotti, JD, director of legal and professional affairs in APA's Office of Legal and State Advocacy.

"At the start of the pandemic, payers swung the telehealth doors wide open," said Alan Nessman, JD, senior special

counsel for legal and regulatory affairs at APA, citing coverage of audio-only telehealth as one example of expanded telehealth coverage. Two years later, some payers are no longer allowing telehealth for out-of-network providers or no longer waiving copays. "We expect that things will end up not completely wide open, but somewhere in between," said Nessman.

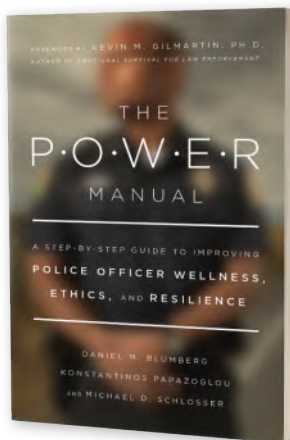
Maintaining payment parity is another priority, said Stephen Gillaspay, PhD, director of health care financing at APA. "Before COVID, psychologists got paid less for providing telehealth services than for providing services in person," he said. "During COVID, payers said, 'We're going to pay you the same amount to make sure everyone gets services.'"

APA is also pushing payers to maintain the expanded number of services eligible for telehealth in patients' homes, said Gillaspay. Other advocacy goals include expanding audio-only telehealth beyond mental health diagnoses to include Health Behavior Assessment/Intervention CPT codes and eliminating a Centers for Medicare & Medicaid Services requirement that patients have an in-person visit with a provider within 6 months of starting telehealth services.

"APA is pushing on a variety of fronts to keep most of these telehealth gains going, but real grassroots advocacy by psychologists is so important," added Nessman. "When you get a call to action from APA or a state psychological association, please send in comments in support of expanded telehealth." ■

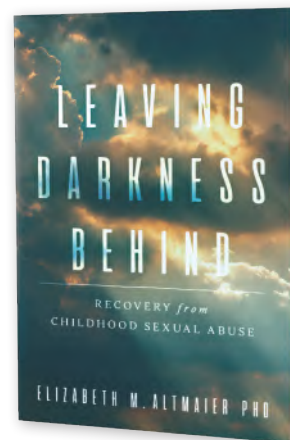


New and Upcoming from APA LifeTools



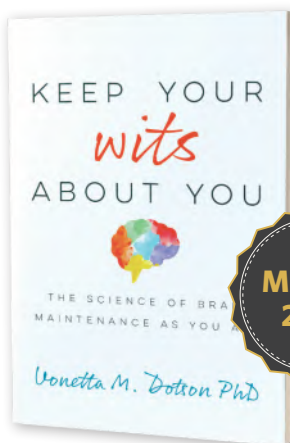
Practical strategies for police officers to use on- and off-duty to improve wellness, strengthen ethical commitments, and boost resilience.

List \$17.99 | 311 pages | Paperback
ISBN: 978-1-4338-3630-5



A recovery journey for survivors of childhood sexual abuse, informed by accurate understandings about complex trauma and healthy practices rooted in positive psychology.

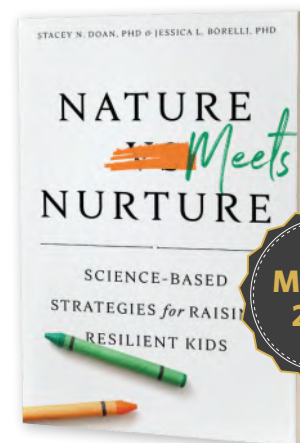
List \$17.99 | 272 pages | Paperback
ISBN: 978-1-4338-3393-9



**MARCH
2022**

Science-based facts and practical tools to help readers develop healthy lifestyles to optimize their cognitive abilities, mental health, and physical functioning at any age.

List \$19.99 | 197 pages | Paperback
ISBN: 978-1-4338-3289-5



**MARCH
2022**

Best parenting practices that foster resilience! Recommendations from behavior scientists who are also mothers to help promote children's—and parents'—emotional wellbeing.

List \$17.99 | 216 pages | Paperback
ISBN: 978-1-4338-3310-6

News You Can Use

Career

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



FIGHTING FAKE NEWS IN THE CLASSROOM

Misinformation and disinformation are enormous problems online. To help stop the spread, psychologists are increasingly incorporating debunking and digital literacy into their courses. **BY STEPHANIE PAPPAS**

After Sam Wineburg, PhD, delivers his first lecture on online disinformation to his Stanford University undergrads, the initial response is disengagement—a general vibe, Wineburg said, of “What does this gray-haired guy have to teach me about the internet?”

Then Wineburg, an educational psychologist in the Stanford Graduate School of Education, asks the students to imagine they’re trying to get help for a bullied sibling. He instructs them to type in a string of keywords into Google and click on one of the top results. There, they’ll find a well-formatted page on bullying. There’s a logo, a .org domain name, and an author with an MD. The students concur: The website looks like a legitimate place to figure out how to deal with bullying.

So Wineburg asks the students to open a new tab and tells them to Google the name of the organization that runs the page: the American College of Pediatricians (ACPed). Now the top hits include the Southern Poverty Law Center, which has identified ACPeds as a fringe hate group. Wikipedia is up there, too, providing a dispassionate history: The organization was formed to oppose adoption of children by gay couples and promotes conversion therapy for LGBTQ people. Much of the page on bullying is devoted to insisting that schools should not run anti-bullying programs focused on “special characteristics” that might “tempt” adolescents to “experiment with atypical behaviors.” But the information is formatted and footnoted to look trustworthy.

The exercise is a real-life introduction to the idea that everyone, not just the naive or unsavvy, is vulnerable to disinformation.

“Once a group of smart Stanford undergraduates sees how easily they are taken in, how easily they fall for this stuff, they suddenly perk up and realize they have something to learn,” Wineburg said. “Nobody wants to be an easy mark.”

Wineburg is one of many psychology instructors who explicitly teach their students how to identify misinformation and disinformation and explain the difference between the two. Misinformation is incorrect information spread innocently: The person creating it or sharing it believes it to be true. Disinformation is deliberately false information.

Both pose enormous problems online, and college students are not immune. “The ability to use a device fluently does not mean that you automatically have the sophistication to evaluate the information that the device spews forth,” Wineburg said.

EQUAL VULNERABILITY

Age doesn’t seem to matter much when it comes to false information, according to some research, which finds that young and old alike are vulnerable to mis- and disinformation. One study by psychologists Jimmeka Guilory Wright, PhD, of Spelman College, and Lisa Geraci, PhD, of the University of Massachusetts Lowell, found that both younger and older adults have an equally difficult time replacing digested fake news with corrected facts



The Columbia Journalism Review built a “misinformation newsstand” in New York City’s Times Square in 2018 to educate people about the dangers of disinformation. The entire newsstand featured false stories taken from the internet and printed in magazines and newspapers made to mimic legitimate publications.

(*Psychonomic Bulletin & Review*, Vol. 17, 2010). Participants read a passage with false information that was later corrected. After the correction, both young and old participants could recite the corrected facts. However, all ages still clung to inferences they’d made using the original incorrect information.

Research led by Stanford History Education Group director Joel Breakstone, PhD, and coauthored by Wineburg found that in a diverse sample of 3,446 high school students from 14 states, most students struggled to distinguish between trustworthy and untrustworthy information online (*Educational Researcher*, Vol. 50, No. 8, 2021). Only about 3% of students realized, for example, that a website purporting to deliver legitimate information about climate change was run by the fossil fuel industry. More than half believed a misleading video supposedly showing ballot stuffing in a U.S. election. (It was a video from Russia.) The researchers found that the students tended to use ineffective

methods for deciding whether to trust an internet source: They put a great deal of trust in .org web addresses, for example, and took “About Us” pages at face value. Less than 10% cross-checked a source’s credentials with a simple web search.

This wasn’t surprising, Wineburg said. Schools don’t generally teach students how to conduct fact checks, despite the fact that teens average 7 to 8 hours a day online (Common Sense Media, 2019). “Why would we expect young people to know how to do something that they weren’t taught to do?” he said.

Fortunately, this sort of instruction melds nicely with the psychology curricula, from Psychology 101 to research methods courses to specialized seminars on cognition and reasoning. “It all comes back to what we know about cognitive biases, so you can connect it to psychology so easily,” said Susan Nolan, PhD, a psychology professor at Seton Hall University and president of APA Div. 2 (Society for the Teaching of Psychology).

ADDRESSING MISINFORMATION

Many students come into psychology courses with pre-conceived notions about the subject, Nolan said, which makes it easy to work debunking into the curriculum from the get-go. Gregory Feist, PhD, a psychology professor at San Jose State University and coauthor of the textbook *Psychology: Perspectives and Connections* (McGraw Hill, 2022), says he and his coauthor built the idea of questioning preconceptions into the book's format by starting each chapter with a quiz on concepts that will come up later. In the developmental chapter, the quiz asks whether giving candy to kids makes them hyperactive. Many people believe sugared-up kids are bound to "bounce off the walls," even though decades of research finds this is untrue (Wolraich, M. L., et al., *JAMA*, Vol. 274, No. 20, 1995). The text then debunks the myth and explains how researchers know it's false. Feist strives to bring a similar approach into class, focusing on teaching students how to weigh the strengths and weaknesses of a study or argument and how to be aware of their own biases.

"The more I've been teaching, I realize it's really about teaching how to think rather than what to think," Feist said.

In his introductory psychology courses, New York University psychologist Jay Van Bavel, PhD, tries to instill the scientific mindset in his students, including tolerance of uncertainty. "I explain to them that science is a process" of getting

FURTHER READING

Evaluating information: The cornerstone of civic online reasoning
Wineburg, S., et al.
Stanford Digital Repository, 2016

Real or fake? Resources for teaching college students how to identify fake news
Musgrove, A. T., et al.
College & Undergraduate Libraries, 2018

Why we need a new approach to teaching digital literacy
Breakstone, J., et al.
Phi Delta Kappan, 2018

Citizens versus the internet: Confronting digital challenges with cognitive tools
Kozyreva, A., et al.
Psychological Science in the Public Interest, 2020

closer and closer to truth, said Van Bavel, whose new book *The Power of Us* (Little, Brown Spark, 2021) covers echo chambers and cognitive biases. "That way, when they open *The New York Times* and see a scientific study they learned in Intro Psych got challenged or debunked, that doesn't mean that Intro Psych was baloney or the whole field of psychology was baloney."

Nolan keeps a running list of psychology-related myths and misinformation related to the subjects she teaches to bring to class. Presenting real-world examples is a common technique among instructors who teach about misinformation and disinformation. Feist asks his students to find a piece of disinformation and write a paper on how they know not to trust it. Lisa Fazio, PhD, of Vanderbilt University, asks students to post examples of misinformation and disinformation in a class Slack channel. At Spelman, Wright has her students track their media consumption throughout the day and assigns them a written reflection on where they

get their news, what they believe, and why.

A key lesson to impart is that no one is immune from believing misinformation, Wright said. She shares examples of falling for false information herself and emphasizes that it's okay to alter one's beliefs based on new information. "I like to normalize being wrong," she said.

While a great deal of disinformation and misinformation is political, instructors strive to present examples from across the political spectrum as well as from nonpolitical sources so as not to turn off students who might have strong political beliefs. "One of the challenging things is not being hyperpolitical about it," Feist said.

EVIDENCE-BASED STRATEGIES

Faculty interested in weaving these lessons into their psychology courses don't need to build a curriculum in a vacuum. Discussions of the topic can be found on the public Facebook page of Div. 2, and instructors post sample syllabi on the Open Science Framework webpage. (Find Fazio's syllabus for her course on the science of misinformation at osf.io/bf263.)

The literature on effective debunking can also be part of a lecture on misinformation. (See "Controlling the Spread of Misinformation" in the March 2021 *Monitor*.) And some classroom curricula and interventions have been empirically tested. One promising method is teaching "lateral reading," or the process of leaving an original source and checking for background



Teaching students to leave an original source and verify its credibility elsewhere can help instill consistent fact-checking.

LESSON PLAN

TOOLS FOR FIGHTING MISINFORMATION

Several researchers and organizations provide free resources for teaching about misinformation and disinformation.

■ Several online games address the topic, including “**Go Viral!**” (goviralgame.com/en), a game that teaches the techniques used to spread false information; “**Bad News**” (getbadnews.com), another game that demonstrates disinformation tactics; and “**Factitious 2020: Pandemic Edition**” (factitious-pandemic.augamestudio.com), which challenges players to differentiate between real and fake news.

■ **The News Literacy Project** (newsliit.org) puts out a weekly newsletter, *The Sift*, and offers interactive lessons at <https://get.checkology.org>.

■ **First Draft News** (firstdraftnews.org) also offers a weekly newsletter on global misinformation.

■ “**Identify and Tackling Manipulated Media**,” by the media organization Reuters (reuters.com/manipulatedmedia), is a course on how to tell when media has been distorted.

■ **The Center for News Literacy** at the Stony Brook University School of Journalism (centerfornewsliteracy.org) has a repository of curriculum tools.

■ **The Debunking Handbook 2020** is a guide to combating disinformation and misinformation. It is hosted by the George Mason University Center for Climate Change Communication but is not specific to climate misinformation (climatechangecommunication.org/debunking-handbook-2020).

■ **Psychological Myths, Mistruths and Misconceptions: Curriculum-Based Strategies for Knowledge Change** (teachpsych.org/ebooks/mythsmistruths), a free e-book from APA Div. 2 (Society for the Teaching of Psychology), covers multiple strategies for debunking myths and instilling scientific literacy skills in the classroom.

■ **Misinformation Desk** (psychologytoday.com/us/blog/misinformation-desk), a *Psychology Today* blog by Susan Nolan, PhD, and Michael Kimball, connects current examples of misinformation with psychological research.

information about the source elsewhere. In a study of teaching lateral reading in college-level civics courses, educational psychology doctoral student Jessica Brodsky of the City University of New York and colleagues found that students initially rarely did this kind of fact-checking but that teaching the strategies as part of a curriculum increased students’ lateral reading (*Cognitive Research: Principles and Implications*, Vol. 6, No. 23, 2021). Wineburg, Breakstone, and their colleagues have tested teaching lateral reading in asynchronous video courses and found that at pretest, only 3 of the 87 participants used lateral reading, while 67 of the 87 did so post-test (*Misinformation Review*, Vol. 2, No. 1, 2021).

Another strategy is to gamify the learning. The online game “Bad News” challenges players to become “fake news tycoons” by using outraged social media posts and emotionally driven headlines to gain influence. The game humorously communicates the strategies that disinformers use with a series of badges players can earn as they build a fake news empire, including awards for impersonation, emotion, polarization, conspiracy, trolling, and discrediting opponents. Research led by University of Cambridge social psychologist Sander van der Linden, PhD, has found that playing “Bad News” helped participants

improve at spotting fake news (*Journal of Cognition*, Vol. 3, No. 1, 2020). The effect of the game fades over time without further intervention but remains strong over a period of at least 3 months if participants are retested on spotting fake headlines (*Journal of Experimental Psychology: Applied*, Vol. 27, No. 1, 2021). Similar games, including a pandemic-specific one called “Factitious 2020: Pandemic Edition,” allow students to test their mettle on differentiating the truthful from the untrustworthy. (See sidebar for more resources.)

As creators of disinformation become increasingly savvy and video- and image-manipulation tech improves, the challenge of creating skeptics who aren’t nihilists, as Wright puts it, may become ever larger. More work will be needed on how best to combat sophisticated misinformation both within the education system and outside of it. But as medical misinformation worsens a deadly pandemic and political misinformation destabilizes democracies, psychologists say the classroom is a good place to fight back. “Tackling misinformation is not something we can fix all at once,” Wright said, “but hopefully by increasing awareness we can start to help our students become more aware of their own bias and help them to be able to identify misinformation when they encounter it.” ■

TECHNOLOGY, MIND & SOCIETY

A VIRTUAL CONFERENCE

AVAILABLE ON-DEMAND
UNTIL MAY 5, 2022



AMERICAN
PSYCHOLOGICAL
ASSOCIATION

TMS.APA.ORG



KEEPING YOUTH ENGAGED IN SCHOOL

The Developmental and Motivation Research Lab at the University of Pittsburgh studies what motivates youth to stay interested in learning

BY KIRSTEN WEIR

The science of mindset has revolutionized education. Decades of research have shown that when students believe they can get smarter with effort, they work harder and achieve more. But it isn't always that simple.

"Growth mindset is a hot topic. Everybody is talking about it—but it doesn't work for everyone in every context," said Ming-Te Wang, EdD, a developmental psychologist at the University of Pittsburgh. His research shows that when it comes to motivation and engagement, context matters.

Wang and his colleagues have explored mindset in a series of longitudinal studies of adolescents in diverse, socioeconomically disadvantaged, urban public schools. They have focused on growth mindset in math, a subject for which kids are particularly likely to believe that success is due to innate talent rather than hard work. While a growth mindset can benefit all kids, Wang and his colleagues found that for kids from lower socioeconomic status (SES) backgrounds, mindset alone may not be enough. While kids from higher SES backgrounds benefited from

learning the value of effort, kids from disadvantaged backgrounds did not—unless they were also taught skills necessary to realize the potential of a growth mindset. "They need the metacognition skills to know how to engage with learning materials," Wang said—skills such as identifying a goal, monitoring their progress toward that goal, and evaluating their understanding so they can adjust their learning strategies (*Child Development*, Vol. 92, No. 5, 2021). In other words, he said, "kids need the will and the skill."

Mindset is one of several themes Wang studies at his Developmental and Motivation Research Lab at the University of Pittsburgh (Pitt), where he is affiliated with the Departments of Psychology and Education and the university's Learning Research and Development Center. His work focuses on what motivates students to succeed and the ways that schools, peers, and family settings influence kids' motivation and engagement with learning. That includes a line of research on biased school discipline practices, which can damage children's trust in educators and derail their motivation to learn.



The lab focuses on understanding how schools, peers, and family settings can either promote or undermine students' motivation to succeed.

"My research aims to address educational and health disparities with historically marginalized youth. The goal is to inform policy and practice so we can promote equity as well as academic, social, and emotional well-being for all kids," Wang said. "Equity and opportunity are the main themes."

HOW TO KEEP KIDS ENGAGED

Wang got his start as a school counselor, working with middle

FG TRADE/GETTY IMAGES



school children in a remote area of Taiwan. His students were primarily members of a local Indigenous group that faced many hurdles. “These kids struggled with a lot of issues, including poverty and discrimination. They were really talented kids, but it was hard to keep them engaged and show them that education is important,” he said. “It really got me thinking that when we try to understand a kid’s behavior or development, we really need to understand the

environment they interact with every day.”

He went back to school with the goal of understanding how environment influences children’s motivation, and he received his doctorate in developmental psychology from Harvard University’s Graduate School of Education in 2010. There, he was coadvised by Robert Selman, PhD, a developmental psychologist, and John Willett, PhD, an expert in statistical methods for modeling change,

learning, and development. That combination was a perfect fit for Wang’s interest in following student trajectories over time. “I’m well versed in developmental theories,” he said, “but I’m also able to use the latest statistical approaches to look at development from a longitudinal perspective.”

Following a postdoctoral research position at the University of Michigan, Wang founded his lab at Pitt in 2012. Loyal to his original interests, Wang has continued to study school engagement. One of his longitudinal studies, which has been in progress since 2014, follows several cohorts of children—beginning in fifth, seventh, or ninth grade. “Since I was a school counselor, I’ve been asking myself about the best ways to keep kids engaged in school and in learning, and this has been a flagship study for the lab,” he said.

One notable finding is the importance of promoting racial-ethnic socialization at school. Assessing 961 African American students enrolled in 17 public schools in the mid-Atlantic region, Wang and his colleagues found that youth who received positive messages about their racial group from their teachers had better grades 1 and 2 years later (*Child Development*, Vol. 92, No. 4, 2021). “When you promote multicultural education in school, kids are more engaged and have a better sense of belonging,” he said.

Despite the benefits, most work on racial-ethnic socialization has focused on parents and families. “We rarely talk

FURTHER READING

Skill, thrill, and will: The role of metacognition, interest, and self-control in predicting student engagement in mathematics learning over time
Wang, M.-T., et al.
Child Development, 2021

The roles of suspensions for minor infractions and school climate in predicting academic performance among adolescents
Del Toro, J., & Wang, M.-T.
American Psychologist, 2021

Parental ethnic-racial socialization practices and children of color’s psychosocial and behavioral adjustment: A systematic review and meta-analysis
Wang, M.-T., et al.
American Psychologist, 2020

An integrative development-in-sociocultural-context model for children’s engagement in learning
Wang, M.-T., et al.
American Psychologist, 2019

about it in schools, which is problematic,” Wang said. Yet integrating these concepts into the classroom doesn’t have to be complicated, adds Juan Del Toro, PhD, a research associate and lead author of the study. “Racial socialization at school can include things like taking 5 minutes to share daily routines from the home, acknowledging holidays that students celebrate, and including books from diverse authors,” said Del Toro. “When youth get these messages from educators, they have a better relationship with teachers and with other students.” That, in turn, leads to more positive racial-ethnic identity development as well as better engagement and academic success.

RACIAL DISPARITIES IN SCHOOL DISCIPLINE

Most of the schools Wang works with are racially and ethnically diverse. And among those schools’ biggest concerns, he says, is the issue of discipline disparity. Students of color are more likely to be suspended or expelled than their White peers for the same behaviors. Those exclusionary punishments lead to kids who are more likely to engage with the criminal justice system—a disturbing pattern known as the school-to-prison pipeline. To address that disparity, Wang is collaborating with James Huguley, EdD, a professor in Pitt’s School of Social Work, to develop the Just Discipline Project. This research-to-practice initiative aims to advance achievement through improved school climates, socioemotional

learning, and restorative school discipline.

In one study to better understand disciplinary disparities, Wang collected data on school climate, student-teacher relationships, and information such as how teachers decide whether to send a child to the principal’s office. “We found that educators believe if they don’t punish kids for their misbehavior in the first place, they’ll engage in more serious behaviors later on,” Wang said. “But it’s quite the opposite. We found that if you punish kids for minor misbehaviors, it undermines the relationship and the kids’ trust in their teachers. And kids then tend to engage in more serious misbehaviors” (*American Psychologist*, online first publication, 2021; Amemiya, J., et al., *American Psychologist*, Vol. 75, No. 1, 2020).

That finding, Wang says, led to an aha moment for many of

RESEARCH FOCI

The Developmental and Motivation Research Lab is:

1
Identifying patterns of student engagement from elementary to high school

2
Exploring the classroom, peer, and family factors that promote or undermine student engagement

3
Investigating school discipline practices and factors that lead to racial disparities in discipline

4
Creating interventions to help students stay motivated and engaged with learning

the teachers his team works with. “When we show them the data from their own schools, that’s really powerful,” he said. “Once you show them what’s working, and what’s not working, most teachers are open to change.”

To address that desire from educators, Wang and his colleagues developed a school-based intervention to improve school climate and address student misbehaviors. In a pilot test of students in third through eighth grade, the intervention reduced office referrals by 25% per year. Meanwhile, student achievement test scores increased by 15% per year. The results are still being prepared for publication, but the team is already planning a larger randomized controlled trial of the intervention in 30 Pittsburgh-area schools, with funding from the U.S. Department of Education. “The intervention rebuilds trust between students and teachers,



Dr. Ming-Te Wang (far left) applies his findings from motivation research to the students, postdocs, and research staff he mentors in his University of Pittsburgh lab.

COURTESY OF DR. MING-TE WANG

which improves school climate and reduces disciplinary referrals. And when kids are less likely to be suspended or referred to the office, they have more time for learning,” Wang said.

Both learning and student-teacher relationships were tested in 2020 when the COVID-19 pandemic forced schools to transition suddenly to distance learning. The lab was able to continue research by moving their data collection to online surveys. They realized it was also an opportunity to gather information about students’ responses to the pandemic. “When COVID closed schools, we were in the middle of collecting data for another project, but quickly we designed a multiwave daily diary study that would let us explore students’ well-being throughout the pandemic,” said Christina Scanlon, PhD, one of Wang’s former doctoral students and a current postdoctoral mentee. “And because we have such a long-standing relationship with many participants, we have 3 or 4 years of rich pre-pandemic data to use as a comparison.”

One of the first analyses from that effort explored stress in adolescents during the early days of the pandemic. The researchers found that parental support and use of coping strategies such as acceptance, distraction, and positive thinking helped buffer the effects of financial- and health-related stress reported by students (*Journal of Affective Disorders*, Vol. 294, 2021).

Another analysis explored what motivated children to practice social distancing during the early days of lockdown. “Social



distancing behavior violates adolescents’ needs for relatedness; we know adolescents need to hang out with their friends,” Wang said. “We found that when we emphasized that social distancing doesn’t just protect you but others as well, adolescents were more likely to engage in distancing. They do it because they want to keep other people safe” (*Journal of Adolescent Health*, Vol. 68, No. 6, 2021).

RESPECTING YOUTH

At first glance, social distancing and disparities in school discipline seem like very different topics. But both lines of research point to a common conclusion, Wang says. When you respect adolescents and support their autonomy, they’re more likely to make choices that benefit themselves and the people around them. That’s true whether they’re misbehaving less often in the

The lab’s research finds that youth who receive positive messages about their racial group from educators earn better grades and develop stronger relationships with teachers and peers.

classroom or complying with social distancing guidelines to protect vulnerable members of the community.

That sense of respect runs through all of Wang’s work. His team views students, educators, and school administrators not as mere research participants but as important partners. “Teachers play a very large role in the work we do, and we’re constantly looking for their feedback and trying to get a sense of their needs,” said lab manager and research coordinator Jacqueline Schall. The team regularly provides reports and professional development training to educators to help them understand what’s happening in their schools and how to translate that into daily practices that benefit students.

Schall joined the lab in 2013 after completing her master’s in applied developmental psychology at Pitt. She has stayed, she

says, because of the impactful work being done by Wang and the rest of the team. “As a researcher, he’s got his finger on the pulse of what’s happening both in research and in practice,” she said. “Every team member has the opportunity to make contributions to the overall work and to benefit in their own personal growth.”

The team currently includes two doctoral students, three postdoctoral researchers, four full-time research staff members, and six undergraduate researchers. In the past few years, Wang has chosen to downsize the team by nearly half to better dedicate himself to his mentees. It’s a formula that’s working, says Del Toro, who turned down job offers to extend his postdoctoral research for an additional year. “When I was interviewing with Ming, I could feel his energy and excitement. He’s very dedicated to

supporting scholars’ individual success,” said Del Toro. “I’m not going to leave until I know I’m going to have something just as good as what I have here.”

Wang has high expectations of his students and advisees, and he provides the support to ensure they meet them, adds Tara Hofkens, PhD, a former doctoral student in the lab who worked with Wang on projects including developing new measures of student engagement in math and science (*Learning and Instruction*, Vol. 43, 2016). Hofkens, now a research assistant professor at the University of Virginia, says she most appreciated how Wang approached applied developmental psychology as a developmental scientist. “He’s a great academician at his core, doing applied work,” she said.

And Wang applies his own findings from motivation research to the mentees

he oversees, Scanlon added. “He pairs high expectations with a growth mindset and ongoing support,” she said. “You see him use the same type of approaches when teaching undergraduate and graduate students as well as when interacting with our community research partners.”

For Wang, the application of his research is the fuel that keeps him going. “The beauty of our work is the really strong connections we have with schools and communities. One thing I’m most proud of is the feedback we’ve been able to provide to schools, and that our research has informed school practice and policy,” he said. “We want our work to have a real impact on the real world.” ■

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



Don't let this be your last issue!

Renew your APA membership today

Don't miss out on the **Monitor on Psychology** — and all of your member benefits and resources.

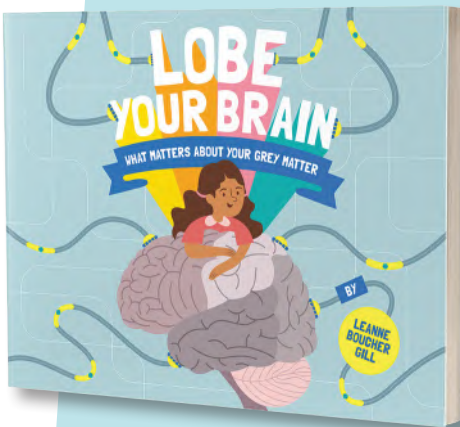
Get the latest **research** and information across psychology, the **career development** tools you need, and the **advocacy** you want — especially now.

Renew online today at: on.apa.org/mon-renew



AMERICAN
PSYCHOLOGICAL
ASSOCIATION

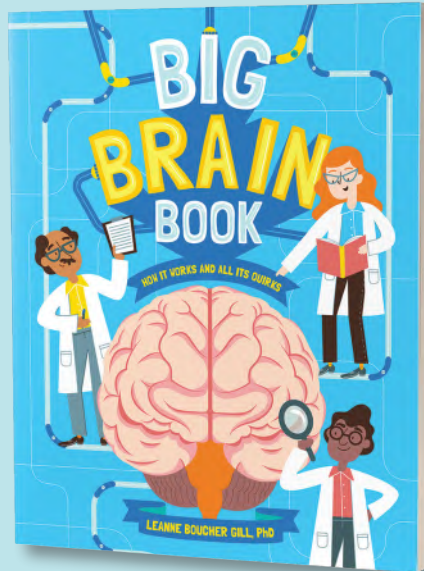
New Must-Have Nonfiction



What Matters About Your Grey Matter

List \$16.99 | Hardcover
ISBN 978-1-4338-3046-4

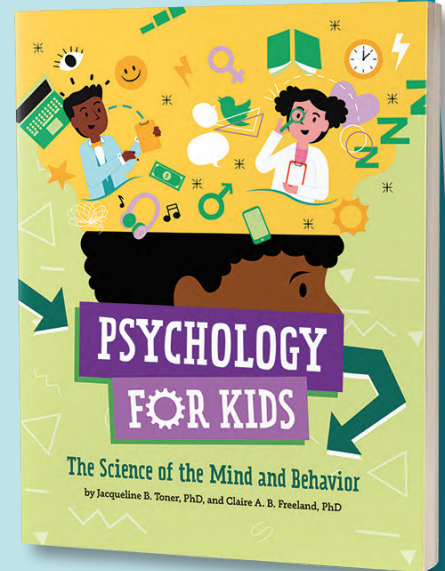
Leanne Boucher Gill



How It Works and All Its Quirks

List \$24.99 | Hardcover
ISBN 978-1-4338-3045-7

Leanne Boucher Gill



The Science of the Mind and Behavior

List \$24.99 | Hardcover
ISBN 978-1-4338-3210-9

Jacqueline B. Toner
and Claire A. B. Freeland

Available wherever books are sold or visit maginationpress.org
to use your APA member discount.

DID YOU KNOW:

Psychologists in early career stages are more likely to be working in business and government settings.¹

Looking for a job in these fields, or need to hire psychologists for applied and/or government positions? Check out APA psycCareers, the home for psychology jobs.

www.psycCareers.com

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



Richeson



Snowden



Gone



Manly



Ophir

PSYCHOLOGISTS IN THE NEWS

President Joe Biden has named **Frances Colón, PhD**, a neuroscientist and senior director for international climate policy at the Center for American Progress, and **Jennifer Richeson, PhD**, a social psychologist at Yale University, to his Council of Advisors on Science and Technology. The council provides science, technology, and innovation policy recommendations to the White House. Richeson is one of the leading U.S. scholars on cultural diversity and social inequality, known for her research on how people navigate interactions with individuals from different racial groups. Colón leads a program to spur global action on climate change and was formerly the deputy science and technology adviser to the U.S. Secretary of State.

The American Public Health Association has presented the Carl Taube Award for Lifetime Contributions to the Field of Mental Health to **Lonnie R. Snowden, PhD**, for his research and expert advising to improve access to quality mental health services for underrepresented communities. Snowden is a professor of health policy and management at Berkeley Public Health at the University of California, Berkeley. His work to spotlight racial and ethnic health disparities throughout his career has sparked

national discussion on remedies and new policies to improve access to quality care.

The National Academy of Medicine has elected psychologists **Joseph P. Gone, PhD**, of Harvard University, and **Jennifer J. Manly, PhD**, of Columbia University, to its membership of health and medical professionals for demonstrating outstanding achievement in service and scholarship. Gone is a professor of anthropology and of global health and social medicine, faculty director of the Harvard University Native American Program, and widely known for his research on Indigenous mental health and well-being. Manly is a professor of neuropsychology known for her work to

improve detection of cognitive impairment among racially, culturally, and socio-economically diverse adults.

Cornell University has presented a Kendall S. Carpenter Memorial Advising Award to **Alexander Ophir, PhD**, for advising and guiding undergraduate students from underrepresented backgrounds and “willingness to serve as a lifelong mentor.” Ophir is an associate professor in the Department of Psychology who studies prairie vole field behavior and neurobiology and has inspired many of his undergraduate advisees to pursue doctorates in psychology.

Western Illinois University now offers a scholarship for experimental psychology students in honor of the late alum and psychologist **Linda Spear, PhD**, a 1972 graduate of the university who later joined the faculty of Binghamton University. Spear’s family worked with the school to create the scholarship after Spear died in October 2020. She founded Binghamton’s neuroscience program and was the first woman to earn the rank of distinguished professor at the school. Western Illinois also posthumously awarded Spear its Fulkerson Outstanding Alum Award. ■

New APA fellows

APA has awarded initial fellow status to 108 psychologists who have made outstanding and national contributions to the discipline of psychology. Initial fellows are APA members who are being awarded fellow status for the first time. For the full list and information on how to apply to be a fellow, go to www.apa.org/about/division/digest/share-members/initial-current-fellows.

US OPPORTUNITIES

LICENSED PSYCHOLOGISTS AND POST-DOCTORAL FELLOWS:

Action Behavior Centers is seeking Licensed Psychologists and Post-Doctoral Fellows to lead and assist with our evaluation services for children suspected of having autism. This is an ideal role for a candidate with an interest in assessment and diagnosis of autism and other developmental disorders. Training provided for the right candidate. Opportunities available in: Arizona (Phoenix, Tucson); Colorado (Denver, Fort Collins); Illinois (Naperville);

North Carolina; Texas. Duties: Conduct standardized assessments for autism evaluations including but not limited to: ADOS-2, CARS-2, ASRS, BASC-3, Vineland-3, DAS-II, DP-4 (training will be provided as needed). Write diagnostic evaluation reports based on interpretation of test results. Provide feedback to families. Some travel within the region is required. Qualifications: Doctorate degree in clinical, counseling or school psychology and licensed in Arizona, Colorado, Illinois, North Carolina, or Texas or working towards licensure as a postdoc. Experience with psychological assessment of children.

We're hiring Clinical Psychologists!

The **California Department of State Hospitals**, the largest forensic mental health hospital system in the nation, is actively looking to fill **Clinical Psychologist** positions at all five of our California locations!

Clinical Psychologists working in DSH facilities enjoy a diverse and fascinating workload. You'll have the opportunity to apply psychological knowledge and techniques to the assessment and treatment of forensic patients, conduct psychological assessments, facilitate psychotherapy groups and individual therapy, and so much more!



Salaries range from **\$93,828 - \$123,636 per year**. As an employee of the State of California you'll also have access to generous retirement benefits, excellent medical, dental, and vision insurance, and more.

Please contact us for more information!

careers@dsh.ca.gov • (916) 654-2609
dsh.ca.gov/jobs

 **California Department of State Hospitals**

TRAINING IN DIFFERENTIAL DIAGNOSIS OF AUTISM AND OTHER NEURODEVELOPMENTAL DISORDERS:

Understanding of evidence-based interventions for children with autism including ABA therapy. Excellent written communication skills. Natural ability to connect with children and parents. Benefits: Time allotted for report writing. High-quality training and clinical support. Varied opportunities such as supervision, clinical-operations support, providing training. Reimbursement for CEUs and license renewals, PTO to attend CEU events. Ample paid time off, health benefits and work-life balance. Management that is responsive, supportive, and promotes a strong company and team culture. Contact: alison.mott@actionbehavior.com.

CALIFORNIA

CLINICAL PSYCHOLOGISTS (INPATIENT AND OUTPATIENT):

California Correctional Health Care Services is seeking Clinical Psychologists (Licensed and Pre-licensed) to join our multidisciplinary mental health teams. Within the California Department of Corrections and Rehabilitation's statewide prison system, you will provide patients with assessment, treatment, crisis intervention, and discharge planning. Enjoy competitive compensation (\$103,512 - \$136,404 annually), positive work-life balance with a 40-hour workweek, and great State of California benefits, including a pension and 401(k)/457 retirement plans, paid CEUs, and much more. Outpatient opportunities exist at institutions throughout California. Inpatient opportunities are available within the Psychiatric Inpatient Programs at our Soledad, Stockton, and Vacaville locations. Contact us at MedCareers@cdcr.ca.gov; or apply online at www.cchcs.ca.gov/careers. EOE.

FLORIDA

LICENSED PSYCHOLOGIST BEHAVIORAL MEDICINE SPECIALIST WITH HOSPITAL TRAINING (BILINGUAL ENGLISH/SPANISH):

We are Cartaya Medical Psychology Group, a well-established private practice serving South Florida with an outpatient office Kendall. Licensed Psychologist Behavioral Medicine Specialist with hospital training (bilingual English/Spanish) to work in thriving group practice. Responsibilities include office outpatients, and consulting in multiple

other settings, such as nursing homes, ALFs, and hospitals. Neuropsychology training a plus. Part-Time or Full-Time. Email curriculum vitae to agent.cart@gmail.com.

GEORGIA

POSTDOCTORAL FELLOW/RESIDENT IN FORENSIC PSYCHOLOGY (JOB OPENING 224034):

The Augusta University Department of Psychiatry has two one-year full-time positions for our fellowship in forensic psychology that will begin on September 1, 2022. The fellowship includes experiences with both adult and juvenile forensic evaluations. Fellows conduct both inpatient and outpatient forensic evaluations, to determine a defendant's competency to proceed, mental state at the time of the offense, and future violence risk. The fellowship also includes didactics covering critical issues in psychology and law as well as a weekly landmark case seminar. Each fellow is allotted protected research time. The stipend for the fellowship year is \$52,500 plus \$1,500 for travel to professional conferences. For a complete description see: https://www.augusta.edu/mcg/psychiatry/fellowship_training/american_psychological_assoc_training/forensicpsychology/index.php. **Applications are due January 3, 2022.** For additional information contact: Holly Tabernik, PhD, Director of Forensic Psychology Training, htabernik@augusta.edu. Required Qualifications: PhD or equivalent degree from an accredited college or university. Shift: Days/M-F; Work outside of the normal business hours may be required. Salary: \$50,000/Annually. Salary to be commensurate with qualifications of selected candidate. Recruitment Period: Until Filled. An Equal Employment Opportunity. Augusta University is proud to be an Equal Opportunity Employer welcoming applicants from underrepresented groups, including individuals with disabilities and veterans. How to Apply: Go to <https://www.augusta.edu/hr/jobs/university/> to search for position 224034 and submit an application to be considered for this position.

ILLINOIS

CLINICAL PSYCHOLOGIST AND POST-DOCTORAL POSITIONS IN PREMIER CHICAGO GROUP PRACTICE - UP TO \$100,000:

Gersten Center for Behavioral Health, a premier group practice in the Chicagoland area,

currently has eight amazing psychology opportunities available: three Licensed Psychologist positions and five Postdoctoral positions. Interested candidates should have a broad range of experience. Specialization with children, adolescents, and families is a plus.

1) Licensed Psychologist Positions: Salary: \$90,000 - \$100,000 (eligible for an increase over time). Start Date: Immediate openings. Outpatient individual, child, adolescent, couples, and family therapy; opportunities to work with patients of all ages and clinical needs, and to provide psychological testing if interested; weekly individual and group consultation; additional training opportunities.

2) Postdoctoral Positions: Salary: \$40,000. Start Date: five positions to start September 2020. Outpatient individual, child, adolescent, couples, and family therapy; opportunities to work with patients of all ages and clinical needs, and to provide psychological testing if interested; weekly individual and group supervision; additional training opportunities; time will be allocated to study for licensure exam. Benefits: For full-time eligible candidates, the position offers excellent benefits such as: W-2 employment status; medical, dental, and vision coverage; flexible spending account (FSA); 401(k) retirement plan with a company match [only available for full-time licensed psychologists]; short-term disability (STD) including a maternity benefit; life insurance; liability/malpractice insurance coverage; sick pay; in-house continuing education; highest reimbursement rates and pay in the industry; over 300 practice referrals per month, allowing for quickly developing and easily maintaining a stable practice; outstanding billing and administrative support; a warm, supportive, and collegial environment with a beautiful work space; flexible work hours conducive to work-life balance; no weekends required; four weeks of vacation for postdoctoral positions; unlimited vacation [only available for full-time licensed psychologists]; 24/7 emergency call back up. Gersten Center for Behavioral Health is a thriving and well-established group practice with six locations in: Chicago, Evanston, Skokie, Melrose Park, and Northfield. Gersten Center for Behavioral Health is proud to be a setting that promotes workplace longevity and long-term stability. We encourage you to visit us at www.gerstencenter.com to learn more about our practice and the reasons for our success. If interested, submit your curriculum vitae

to Dr. Deborah Liebling at dliebling@gerstencenter.com.

ANXIETY SPECIALIST: We are searching for our next anxiety specialist to add to our team! Advanced Therapeutic Solutions for Anxiety is an out-of-network provider with competitive pay, staff to assist patients with in-network exceptions, and staff to do all billing so you can focus on your patients. This is a W2 position with full benefits. Patients pay at the time of service, so there is no chasing claims! We are known in the community for the excellent therapeutic interventions that we apply in the clinic, school, and community settings. We treat children, adolescents, and young adults. We have a healthy referral stream and need to add our new specialist ASAP. Looking for a new, rewarding therapeutic experience with motivated, wonderful patients? And working with a mission-driven staff who have each others' backs? We'd love to meet you! Ideal Qualifications: 3+ years experience conducting diagnostic intake evaluations and developing tailored treatment plans for anxiety disorders; 3+ years' experience providing CBT, ACT, ERP, DBT; ability to see patients on Saturdays; meeting requirements for APIT is a plus. Opportunities: training, supervision, and/or collaboration to support professional development as an anxiety specialist; collegial support to follow your interests/further develop your specialty; flexible schedule that you create yourself to support your work-life balance; reimbursement for continued development (e.g., conferences, certifications, etc.) Visit www.advancedtherapeuticsolutions.org to learn more about us. To apply send curriculum vitae to: drlynas@advancedtherapeuticsolutions.org.

MASSACHUSETTS

LICENSED PSYCHOLOGIST: Division of Psychology at Boston Children's Hospital seeks a licensed psychologist for new 12-bed child/adolescent Inpatient Psychiatry Service (IPS) in Waltham, Massachusetts. This psychologist will join a multidisciplinary team, providing clinical consultation to staff and trainees regarding the prevention and management of behavioral dysregulation, undertake the evaluation of milieu-based intervention; conduct group therapy, and provide patient and family interventions. Support is provided for scholarly activities and involvement in QI initiatives pertaining to acute psychiatric

treatment programs. Ideal role for a psychologist interested in an academic career in acute psychological treatment. Successful candidates will have experience in acute psychiatric settings, inpatient or residential programs, with formal training in cognitive behavioral interventions and dialectical behavior therapy. Participants with experience working in specific programs, such as eating disorder treatment programs, medical-psychiatric inpatient or partial hospital programs are encouraged to apply. Applicants must possess a Massachusetts health service provider license in psychology prior to assuming the position. Academic appointments at Harvard Medical School likely at Instructor or Assistant Professor level; graduates of APA/CPA-accredited doctoral programs and internships are preferred. Please send your letter of application and a recent curriculum vitae to Courtney Kellogg, Department of Psychiatry and Behavioral Sciences, Boston Children's Hospital, 300 Longwood Avenue, Boston, MA 02115 (Courtney.Kellogg@childrens.harvard.edu). Boston Children's Hospital is an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.

PEDIATRIC PSYCHOLOGIST - PCS: Boston Children's Hospital seeks full-time pediatric psychologist to join a large, multidisciplinary Psychiatry Consultation Service (PCS). PCS provides services to hospitalized patients on inpatient medical and surgical units including diagnostic evaluations, safety assessments, psycho-education, short-term therapeutic interventions, and care coordination with hospital and community providers. PCS consists of psychiatrists, psychologists and psychiatric social workers. Clinicians work in an interdisciplinary model within and outside the service and collaborate with the many medical and surgical specialty and subspecialty teams. Supervision and education of PCS trainees is expected. PCS provides training to psychology interns, post-doctoral psychology fellows, child and adolescent psychiatry fellows, pediatric residents, Harvard medical students. Support is provided for scholarly activities and involvement in QI initiatives. We are seeking a psychologist whose intent is to develop,

implement, and publish academic clinical or educational projects in pediatric psychology and consultation-liaison services. Applicants must possess a Massachusetts health service provider license in psychology prior to assuming the position. Academic appointments at Harvard Medical School likely at Instructor or Assistant Professor level; graduates of APA/CPA-accredited doctoral programs and internships preferred. Send your current curriculum vitae and a letter of application to Courtney Kellogg, Department of Psychiatry and Behavioral Sciences, Boston Children's Hospital, 300 Longwood Avenue, Boston, MA 02115 (Courtney.Kellogg@childrens.harvard.edu). Boston Children's Hospital is an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.

PEDIATRIC PSYCHOLOGIST - PCS AND

PTC: Boston Children's Hospital seeks full-time pediatric psychologist for large, multidisciplinary Psychiatry Consultation Service (PCS) and dedicated consultation to the Pediatric Transplant Center (PTC). The PTC has uniquely collaborative solid organ transplant programs for heart, lung, liver, kidney, intestine and multivisceral transplants. Clinical services include clinical consultation with PTC staff, conducting pre-transplant evaluations, pre/post-transplant diagnostic assessments, psychoeducation, follow-up management of patients and families, and managing/facilitating case transfers from the PTC to elsewhere. Supervision and education of PCS trainees is expected. The PCS provides training to psychology interns, post-doctoral psychology fellows, child and adolescent psychiatry fellows, pediatric residents, Harvard medical students. Support is provided for scholarly activities and involvement in QI initiatives. We seek a psychologist whose intent is to develop, implement, and publish academic clinical or educational projects in the areas of solid organ transplant, pediatric psychology and consultation-liaison services. Applicants must possess a Massachusetts health service provider license in psychology prior to assuming the position. Academic appointments at Harvard Medical School likely at Instructor or Assistant Professor level; graduates of APA/CPA-accredited

doctoral programs and internships preferred. Send your current curriculum vitae and letter of application to Courtney Kellogg, Department of Psychiatry and Behavioral Sciences, Boston Children's Hospital, 300 Longwood Avenue, Boston, MA 02115 (Courtney.Kellogg@childrens.harvard.edu). Boston Children's Hospital is an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.

PEDIATRIC PSYCHOLOGIST - OWL: The Optimal Wellness for Life (OWL) Program, in collaboration with the Division of Psychology, Department of Psychiatry at Boston Children's Hospital, is seeking a pediatric psychologist to join our Behavioral Medicine team. OWL provides consultation to children who are overweight and their families, assisting them with healthy lifestyle changes. This 20-30 hour position is within a multidisciplinary team with medical providers and dietitians, and includes assessment and care for children and their families from diverse backgrounds and who present with a range of behavioral presentations in our main (Longwood) campus, Peabody and Waltham satellites. The psychologist will assist in implementing individual and group treatment programs for families. The position may include opportunities to provide supervision to pre- and postdoctoral trainees and participate in research. Candidates with clinical experience in pediatric behavioral medicine are encouraged to apply. Applicants must possess a Massachusetts Psychologist Provider license prior to assuming the position. Graduation from an APA/CPA-accredited doctoral program and internship is required. Appointment at Harvard Medical School will likely be at the Instructor or Assistant Professor level. Letters of application detailing relevant experience and a recent curriculum vitae should be sent to Courtney Kellogg, Department of Psychiatry, Boston Children's Hospital, 300 Longwood Avenue, Boston, MA 02115 or via e-mail (courtney.kellogg@childrens.harvard.edu). We are an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran

status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.

ATTENDING PSYCHOLOGIST: The Deaf and Hard of Hearing (DHH) Program of Boston Children's Hospital seeks attending psychologist to conduct research, teach and provide clinical services: diagnostic assessments, consultations, and short-term treatment. Required: keen assessment skills with DHH infants, children, and adolescents and ability to work effectively with their families; experience working clinically with DHH children essential; ASL competency preferred; skilled in counseling and providing therapeutic guidance; graduate from APA/CPA-accredited doctoral program and internship. Applicant must possess a Massachusetts psychology health service provider license prior to assuming the position. Appointment at Harvard Medical School as Instructor, Assistant or Associate Professor will be commensurate with experience and will require ongoing teaching. To apply: Letter of application detailing relevant experience and recent curriculum vitae should be sent to the attention of Courtney Kellogg, Department of Psychiatry and Behavioral Sciences, Boston Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. (Courtney.Kellogg@childrens.harvard.edu). Boston Children's Hospital is an Equal Opportunity / Affirmative Action Employer. Qualified applicants will receive consideration for employment without regard to their race, color, religion, national origin, sex, sexual orientation, gender identity, protected veteran status or disability.

LICENSED PSYCHOLOGIST: Boston Children's Hospital Division of Psychology, Department of Psychiatry and Behavioral Sciences seeks licensed psychologist for brand new 12-bed child and adolescent Inpatient Psychiatry Service (IPS) in Waltham, Massachusetts. Responsibilities include: providing clinical consultation to staff and trainees regarding the prevention and management of behavioral dysregulation; evaluating the effectiveness of milieu-based intervention; conducting group therapy, and providing patient and family interventions. Support offered for scholarly activities and involvement in quality improvement initiatives pertaining to acute psychiatric treatment programs. Ideal position for a psychologist interested in

an academic career in acute psychological treatment for children and adolescents. Successful candidates have experience working in acute psychiatric treatment settings, particularly in inpatient or residential treatment programs, with formal training in CBT and DBT. Participants with experience in specific treatment programs like: eating disorder treatment programs, medical-psychiatric inpatient or partial hospital programs are also encouraged to apply. Applicants must possess a Massachusetts health service provider license in psychology prior to assuming the position. Academic appointments at Harvard Medical School likely at Instructor or Assistant Professor. Graduates of APA/CPA-accredited doctoral programs and internships are preferred. Letter of application detailing relevant experience, recent curriculum vitae to Courtney Kellogg at Courtney.Kellogg@childrens.harvard.edu or Department of Psychiatry and Behavioral Sciences Boston Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Boston Children's Hospital is an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status or any other characteristic protected by law.

MINNESOTA

CLINICAL PSYCHOLOGIST: The Department of Psychiatry and Psychology at Mayo Clinic in Rochester, Minnesota, is seeking a clinical psychologist to join the staff of a residential treatment program as Clinical Director. The ideal candidate for this leadership position is a clinical psychologist with experience treating severe mood disorders, psychotic disorders, and personality disorders. Experience in evidence-based psychotherapies as well as experience working in residential treatment settings are strongly preferred. Contact: Ashlie Korb at medicareers@merrithawkins.com or at (866) 406-0269 and reference PSYC-140696.

MISSOURI

PSYCHOLOGIST: The Washington University School of Medicine's Division of Gastroenterology is searching for a full-time clinician track faculty member of any rank. The appointee will provide assessments and evidence-based interventions for

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

NEW YORK

TENURE TRACK PROFESSOR-COUNSELING PSYCHOLOGY: The Counseling Psychology Program at Teachers College, Columbia University, is recruiting to fill an open rank tenure-track position. In particular, we are seeking candidates with interest and/or expertise in the area of African American psychology, who can provide leadership in multicultural education, training, practice and research. A successful applicant for this position will have a desire to engage in productive research that complements and extends the scholarly diversity of the program, as well as a demonstrated ability to teach and advise effectively at the graduate level. Top priority, however, will be given to those with training, experience, and/or interest in mental health, counseling/therapy, racial identity, racism, and antiracism

related to African Americans. Responsibilities: Develop a program of research in race, racism and multiculturalism; teach graduate-level courses; advise doctoral and masters students; and supervise research and clinical placement of doctoral and masters students. Minimum Qualifications: Earned doctorate in counseling psychology; professionally licensed or license-eligible in the State of New York; evidence of research productivity and potential for extramural funding; and commitment to teaching excellence. To apply for the position please visit: <https://employment.tc.columbia.edu/en-us/job/509011/tenure-track-professorcounseling-psychology>. In order to be considered for this position applicants must submit the following: A CV; a letter of intent; a statement of research and teaching interests; three letters of reference sent independently; up to three representative publications to the following through the application portal. The three (3) letters of reference should be sent by recommenders by email or mail directly to: Derald Wing Sue, Search Committee Chair, dw2020@tc.columbia.edu, Counseling Program Search, Box 102, Teachers College, Columbia University, 525 West 120th Street, New York, NY 10027.

PENNSYLVANIA

CLINICAL SCIENCE - DEPARTMENT OF PSYCHOLOGY, UNIVERSITY OF PENNSYLVANIA: The Department of Psychology at the University of Pennsylvania is recruiting faculty in the area of Clinical Psychology, beginning this year with a tenured appointment at the level of Associate or Full Professor. We seek stellar candidates who are making substantial contributions to clinical science, broadly defined. Clinical licensure is preferred, but not required. The successful candidate will join the core faculty of our APA- and PCSAS-accredited clinical training program and will contribute to the department's teaching and training missions at the graduate and undergraduate levels. **Review of applications began November 1, 2021 and continues until the position is filled.** Interested candidates should submit materials online at <http://apply.interfolio.com/95749> and include a curriculum vitae, and statements of research and teaching interests. The Department of Psychology is strongly committed to Penn's Action Plan for Faculty Diversity and Excellence and to creating a more diverse faculty (for

more information see: <http://www.upenn.edu/almanac/volumes/v58/n02/diversityplan.html>). The University of Pennsylvania is an Equal Opportunity Employer. Minorities, women, individuals with disabilities, and protected veterans are encouraged to apply. Informal inquiries may be directed to Sara Jaffee, Search Committee Chair, at srjaffee@psych.upenn.edu.

STATISTICS

FREE ONE-HOUR CONSULTATION: No obligation. Statistical Sanity Consulting offers statistical analysis and interpretation, manuscript development, editing, defense coaching, and strategizing customized to meet your unique needs. Call (570) 881-0439. www.statisticalsanityconsulting.com.

ADVERTISING GUIDELINES

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

► CENSURED INSTITUTIONS

Academic institutions under censure by the American Association of University Professors (AAUP) are identified in print and online by the placement of the symbol (•) preceding line classified position openings. Further information may be obtained at www.aaup.org/our-programs/academic-freedom/censure-list. To purchase a recruitment ad or to view pricing and a complete list of upcoming deadlines, visit www.psycareers.com/employer-offers.

For information regarding placing a nonrecruitment line ad email Amelia Dodson at adodson@apa.org.

ADVERTISING INDEX

American Professional Agency, Inc.....	1
American Psychological Foundation.....	34
APA Books	
Life Tools	86
Magination Press	97
APA Continuing Education : Interactive Professional Development.....	84
APA Membership	
Membership Directory.....	28
Membership Renewal	96
TMS	91
APA psycCareers.....	98
Brighter Vision.....	7
CarePaths.....	32
EMDR Institute.....	28
iPlum.....	18
Life University.....	20
MHS.....	Inside Front Cover
Nova Southeastern University	30
oVRcome.....	12
PAR.....	9
Pearson Clinical Assessment	4
Power Diary	11
Simple Practice	Back Cover
SIOP	33
Southwestern Virginia Mental Health Institute	82
Therapy Appointment.....	16
TherapySites.....	Inside Back Cover
Total Child Health	21
University of Denver	48



About two thirds of Americans supported Black Lives Matter during protests in June 2020. While that number declined through that summer, it has remained stable since September 2020.

55% Percentage of U.S. adults who expressed at least **some support** for the Black Lives Matter movement in September 2021—about the same as in September 2020.

83% Percentage of Black American adults who currently express at least **some support** for the movement, with 58% saying they **strongly support** it. That compares with 68% of Asian American adults, 60% of Hispanic American adults, and 47% of White American adults who express **some support**. A third or fewer of non-Black Americans express **strong support**.

85% Percentage of Democrats who express at least **some support** for the movement, including 48% who **strongly support** it. By contrast, 78% of Republicans and those who lean to the GOP say they **oppose** the movement, with 58% saying they **strongly oppose** it.

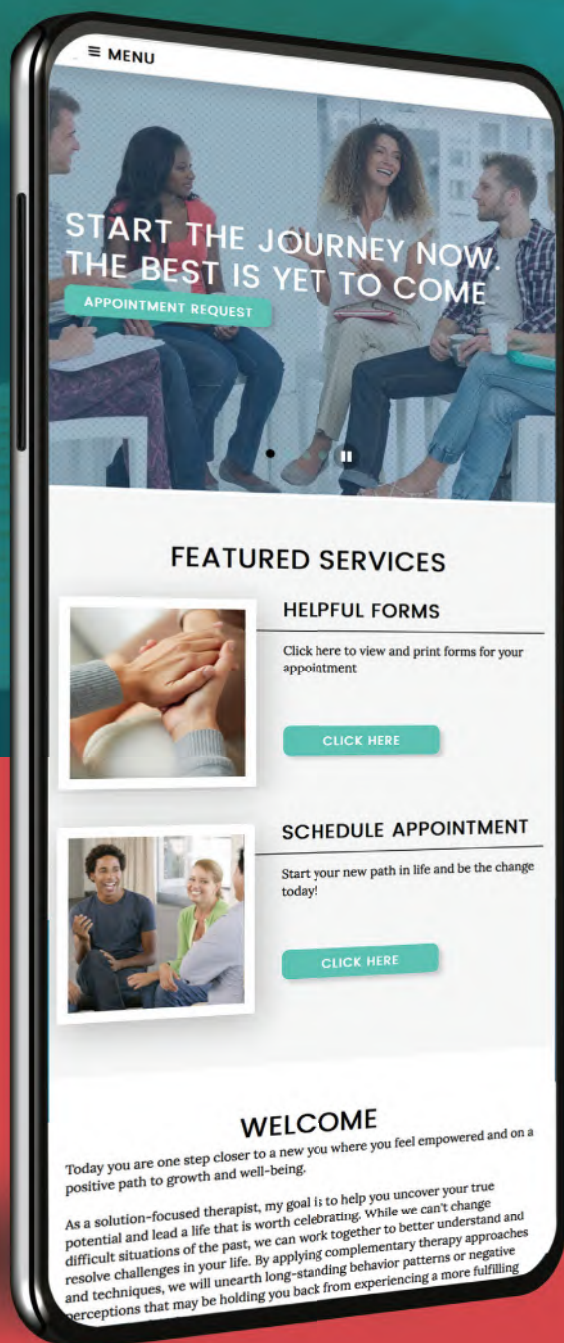
67% Percentage of U.S. adults **younger than age 30** who express at least **some support** for the movement, compared with those ages 30–49 (58%), 50–64 (49%), and 65 and older (46%). Meanwhile, 64% of those with a postgraduate degree express **some support**, compared with those with a bachelor's degree (58%), some college (53%), and a high school diploma or less (50%).

Source: Pew Research Center survey of U.S. adults, conducted Sept. 13–19, 2021.

Available at <https://www.pewresearch.org/fact-tank/2021/09/27/support-for-black-lives-matter-declined-after-george-floyd-protests-but-has-remained-unchanged-since/>.



Make Marketing Your Practice Easy In 2022



Get everything you need to reach new clients in 2022



MODERN WEBSITE DESIGN

Websites built for performance and customized to your practice.



E-COMMERCE SOLUTIONS

Get the power to easily sell online anywhere, to anyone – across the internet.



FACEBOOK ADS


Get your practice advertised on the most popular social networks.

2 MONTHS FREE WEBSITE HOSTING

**New clients only. Some restrictions may apply.*

CALL 855-772-4754 OR VISIT APA.THERAPY2022.COM

Discover why psychologists love



Visit simplepractice.com/apa to get 2 free months of SimplePractice.

