Prevalence and Severity of Burnout: Workforce Well-being as Care Quality

J. Bryan Sexton, PhD
Director, Duke Center for
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Prevalence and Severity of Burnout

Rapid review of 10 years leading up to the pandemic

New well-being results from 2022

A look at joy…

QUALITY

THE RACE FOR QUALITY HAS NO FINISH LINE-
SO TECHNICALLY, IT'S MORE LIKE A DEATH MARCH.

Well-Being Redefined

The ability to **“do stuff”**

American Journal of Infection Control 40 (2012) 486-90

Contents lists available at ScienceDirect

American Journal of Infection Control

journal homepage: www.ajicjournal.org

Major article

After controlling for pt severity and nurse and hospital characteristics, **only nurse burnout was associated with the clinical outcomes**

Key Words:
Hospital
Workload
Cost
PHC4

Background: Each year, nearly 7 millio…tions while being treated for other conditions. Nurse staffing has be…fection within hospitals, yet little evidence is available to explain this a…
Methods: We linked nurse survey da…th Care Cost Containment Council report on hospital infections and the Amer…n Annual Survey. We examined urinary tract and surgical site infection, the mos…s reported and those likely to be acquired on any unit within a hospital. Linear reg… to estimate the effect of nurse and hospital characteristics on health care–associate…
Results: There was a significant a…etween patient-to-nurse ratio and urinary tract infection (0.86; $P = .02$) and surgical site infecti…; $P = .04$). In a multivariate model controlling for patient severity and nurse and hospital charact…ics, only nurse burnout remained significantly associated with urinary tract infection (0.82; $P = .03$) a…d surgical site infection (1.56; $P < .01$) infection. Hospitals in which burnout was reduced by 30% had a total of 6,239 fewer infections, for an annual cost saving of up to $68 million.
Conclusions: We provide a plausible explanation for the association between nurse staffing and health care–associated infections. Reducing burnout in registered nurses is a promising strategy to help control infections in acute care facilities.

Impact on critical care nurses

Half are **emotionally exhausted** (burned out)

2 out of 3 have **difficulty sleeping**

1 out of 4 are **clinically depressed**

Sexton, et al. (2009). Palliative Care.

JAMA, May 18, 2011—Vol 305, No. 19 **2009**

Physician Burnout

A Potential Threat to Successful Health Care Reform

Liselotte N. Dyrbye, MD, MHPE
Tait D. Shanafelt, MD

DISCUSSIONS OF BARRIERS TO SUCCESSFUL IMPLEMENtation of the Patient Protection and Affordable Care Act have largely focused on legislative, logistic, and legal hurdles. Notably absent from these discussions is how the health care reform measures may affect the emotional health of physicians.

Burnout is common among physicians in the United States, … an estimated 30% to 40% experiencing burnout.[1] Man… of patient care may be compromised by burnout. P… have burnout are more likely to report making … rors, score lower on instruments measurin… retire early and hav… ciated … and pa…

Burn… dence … on-call … sonal a… trol, au… out in physicians.[2,3,5] Some aspects of health care reform are likely to exacerbate many of these stressors and thus may

such as those expenses associated with reporting quality-based measures, will be an additional ongoing practice expense. These and other new regulations and reporting requirements (eg, requiring reporting of patient outcome data and guideline adherence for payment) will also increase the administrative burden for physicians on each patient for whom they provide care. Indeed physicians in Massachusetts report seeing more patients,[8] reducing the time they spend with each patient, dealing with greater administrative requirements, and experiencing a detrimental financial impact after implementation of the Massachusetts Health Insurance Reform Law.[9] If physicians nationally have a similar experience with health care reform, it is likely to result in increased workload that will exacerbate the challenge physicians have balancing their personal and professional life. Thus, health care … load, … ors

… hat … ng … di- … ing … care reform that are likely to improve patient care and reduce physician workload and stress. The introduction of a

Burnout is common among physicians in the United States, with an estimated 30% to 40% experiencing burnout.

Burnout and Suicidal Ideation among U.S. Medical Students

Dyrbye et al., 2010

50% of medical students burned out

10% have suicidal ideation

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Surveillance Summaries / Vol. 60 / No. 13
October 21, 2011

Suicidal Thoughts and Behaviors Among Adults Aged ≥18 Years — United States, 2008–2009

Alex E. Crosby, MD[1]
Beth Han, MD, PhD[2]
LaVonne A. G. Ortega, MD[1]
Sharyn E. Parks, PhD[1]
Joseph Gfroerer, BA[2]
[1]*Division of Violence Prevention, National Center for Injury Prevention and Control, CDC*
[2]*Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Rockville, Maryland*

Abstract

Results: Prevalence estimates of suicidal thoughts and behaviors varied by sociodemographic factors, region, and state. During 2008–2009, an estimated 8.3 million (annual average) adults aged ≥18 years in the United States (3.7% of the adult U.S. population) reported having suicidal thoughts in the past year. The prevalence of having suicidal thoughts ranged from 2.1% in Georgia to 6.8% in Utah. An estimated 2.2 million (annual average) adults in the United States (1.0% of the adult U.S. population) reported having made suicide plans in the past year. The prevalence of reports of suicide planning ranged from 0.1% in Georgia to 2.8% in Rhode Island. An estimated 1 million (annual average) adults in the United States (0.5% of the U.S. adult population) reported making a suicide attempt in the past year. The prevalence of reports of suicide attempts ranged from 0.1% in Delaware and Georgia to 1.5% in Rhode Island. The prevalence of suicidal thoughts, suicide planning, and suicide attempts was significantly higher among young adults aged 18–29 years than it was among adults aged ≥30 years. The prevalence of suicidal thoughts was significantly higher among females than it was among males, but there was no statistically significant difference for suicide planning or suicide attempts.

BMJ

BMJ 2012;344:e1717 doi: 10.1136/bmj.e1717 (Published 20 March 2012)

Table 4| **Nurse outcomes in 12 European countries and the US. Data are number of nurses reporting outcome/total number of nurses surveyed, and percentage**

Country	Reported ward to have poor or fair quality of care		Gave ward poor or failing safety grade		Regarded themselves to be burnt out		Dissatisfied with job		Intended to leave their job in the next year		Not confident that patients can manage own care after hospital discharge		Not confident that hospital management would resolve patients' problems	
Belgium	886/3167	28	199/3150	6	730/2938	25	680/3159	22	934/3164	30	1921/3153	61	2518/3134	80
England	540/2899	19	191/2895	7	1138/2699	42	1136/2904	39	1261/2896	44	981/2901	34	1856/2893	64
Finland	141/1099	13	76/1095	7	232/1047	22	300/1114	27	546/1111	49	441/1098	40	890/1094	81
Germany	526/1507	35	94/1506	6	431/1430	30	561/1505	37	539/1498	36	473/1505	31	879/1504	58
Greece	170/361	47	61/358	17	246/315	78	199/358	56	177/358	49	231/358	65	311/356	87
Ireland	152/1389	11	117/1385	8	536/1293	41	581/1383	42	612/1380	44	588/1385	42	872/1381	63
Netherlands	756/2185	35	123/2187	6	211/2061	10	240/2188	11	418/2197	19	889/2195	41	1781/2200	81
Norway	468/3732	13	199/3712	5	823/3501	24	773/3729	21	942/3712	25	2097/3710	57	2739/3698	74
Poland	683/2581	26	463/2579	18	929/2321	40	663/2584	26	1056/2387	44	1890/2571	74	2196/2571	85
Spain	897/2794	32	173/2784	6	787/2670	29	1053/2786	38	740/2774	27	1554/2779	56	2370/2767	86
Sweden	2750/10 051	27	1117/10 035	11	2788/9477	29	2251/10 027	22	3418/10 013	34	2833/9995	28	7308/9988	73
Switzerland	324/1604	20	71/1606	4	228/1563	15	338/1610	21	447/1623	28	564/1612	35	1216/1612	75
US	4196/26 316	16	1628/26 772	6	9122/27 163	34	6692/26 935	25	3767/27 232	14	11 449/25 110	46	15 240/26 717	57


Lies. ALL LIES.

Longitudinal Study of Physician Burnout

- 2011
- 2014
- 2017
- 2020

MAYO CLINIC

ORIGINAL ARTICLE

Changes in Burnout and Satisfaction With Work-Life Integration in Physicians and the General US Working Population Between 2011 and 2020

Tait D. Shanafelt, MD; Colin P. West, MD; Mickey Trockel, MD, PhD; Michael Tutty, Lindsey E. Carlasare, MBA; and Lotte N.

Abstract

Objective: To evaluate the prevalence of burn among physicians and US workers in 2020 rel

Methods: Between November 20, 2020, and probability-based sample of the US working population using methods similar to our prior studies. Burnout and WLI were measured using standard tools. Information about specific work-related COVID-19 experiences was collected.

Results: There were 7510 physicians who participated in the survey. Nonresponder analysis suggested that participants were representative of US physicians. Mean emotional exhaustion and depersonalization scores were lower in 2020 than in 2017, 2014, and 2011 (all $P<.001$). However, emotional exhaustion and depersonalization scores did not improve in specialties most heavily affected by COVID-19. Overall, 38.2% of physicians reported 1 or more symptoms of burnout in 2020 compared with 43.9% in 2017, 54.4% in 2014, and 45.5% in 2011 (all $P<.001$). Providing care without adequate personal protective equipment (odds ratio [OR], 1.53; 95% CI, 1.35 to 1.72) and having suffered disruptive economic consequences due to COVID-19 (OR, 1.49; 95% CI, 1.32 to 1.69) were independently associated with risk of burnout. On multivariable analysis, physicians were at increased risk for burnout (OR, 1.41; 95% CI, 1.25 to 1.58) and were less likely to be satisfied with WLI (OR, 0.71; 95% CI, 0.64 to 0.79) than other working US adults.

Conclusion: Burnout and satisfaction with WLI among US physicians improved between 2017 and 2020. The impact of the COVID-19 pandemic on physicians varies on the basis of professional characteristics and experiences. Physicians remain at increased risk for burnout relative to workers in other fields.

In 2011, we began longitudinal profiling of the point prevalence of burnout and satisfaction with work-life integration (WLI) among physicians and US workers every 3 years.[1-4] This series of studies has documented greater occupational distress in physicians than in workers in other fields and changes in the prevalence and severity of burnout in physicians, with a peak in 2014. This research has also provided insights into the causes of occupational distress in physicians,[5-8] individual factors related to occupational distress,[9-12] personal and professional consequences,[13-18] and barriers to seeking help.[13,16,17,19]

Numerous changes have occurred since the 2017 study. Most notably, the COVID-19 pandemic has led to exhaustion and magnified work stress for many physicians.[20] Previous studies, primarily focused on

For editorial comment, see page 439

From Department of Medicine, Stanford University, Palo Alto, CA (T.D.S.); Department of

Affiliations continued at the end of this article.

All

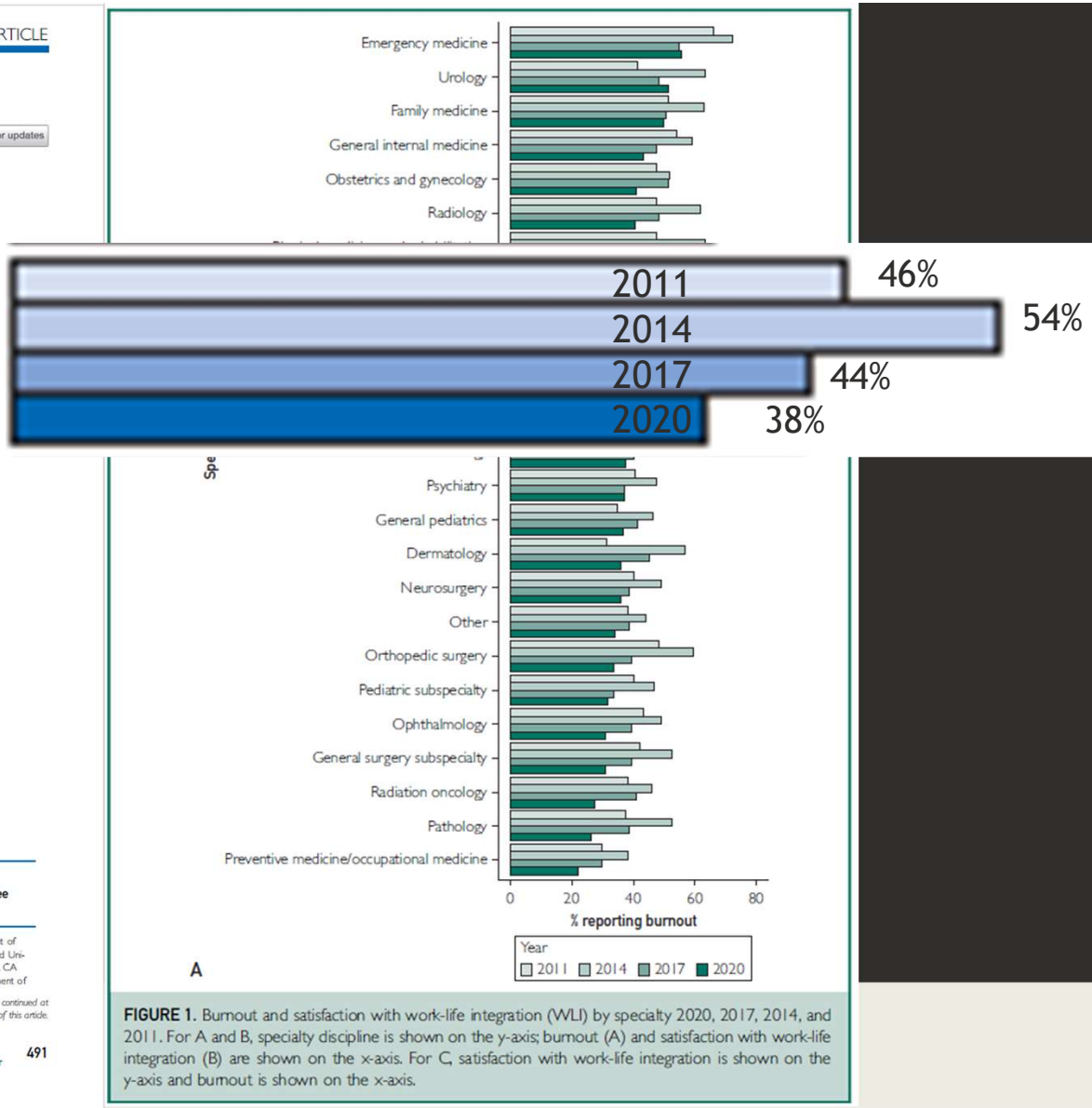


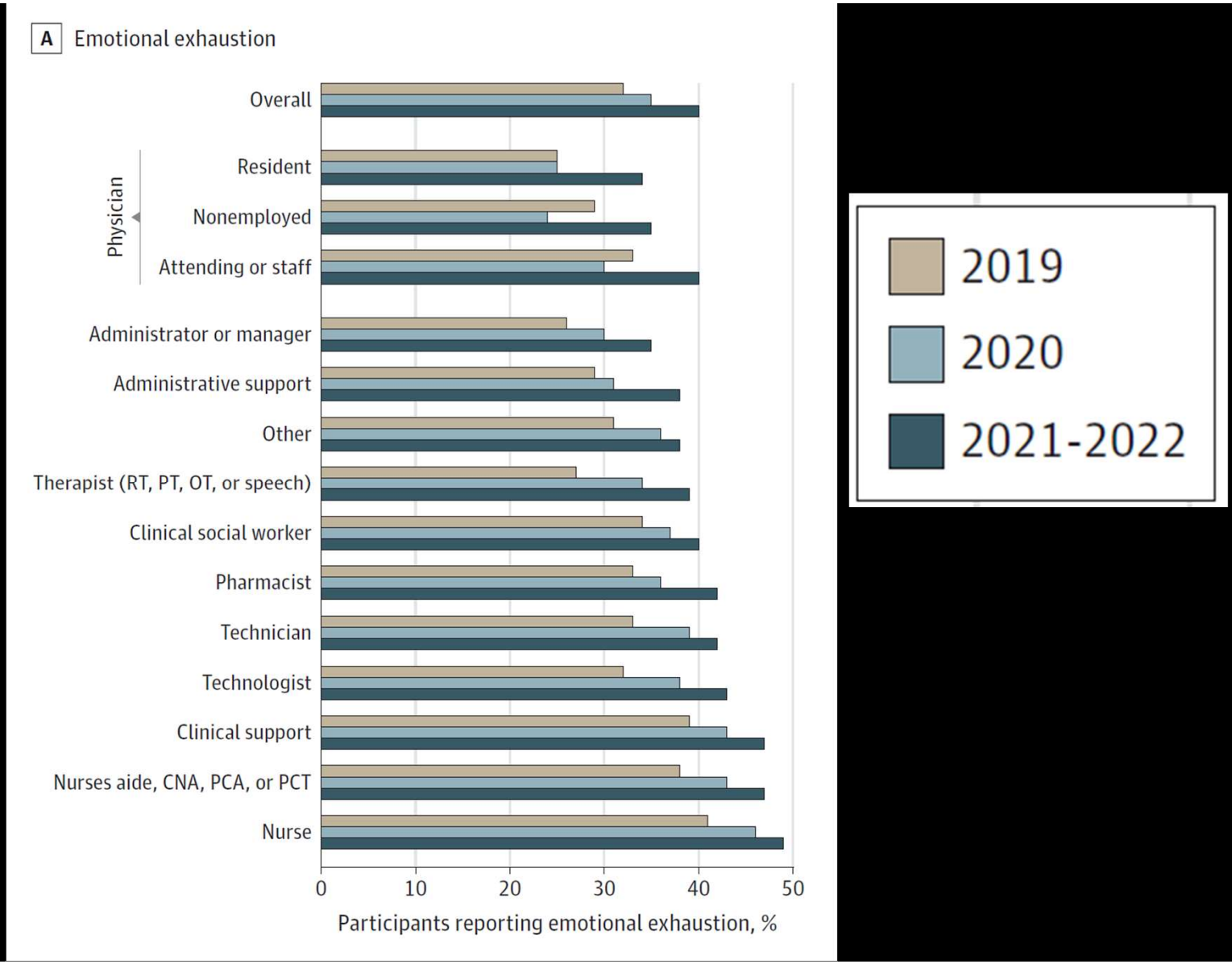
FIGURE 1. Burnout and satisfaction with work-life integration (WLI) by specialty 2020, 2017, 2014, and 2011. For A and B, specialty discipline is shown on the y-axis; burnout (A) and satisfaction with work-life integration (B) are shown on the x-axis. For C, satisfaction with work-life integration is shown on the y-axis and burnout is shown on the x-axis.

We have data from 30,000 healthcare workers in:

Sept 2019

Sept 2020

Sept 2021/Jan 2022


A Emotional exhaustion
Overall
Physician
Resident
Nonemployed
Attending or staff
Administrator or manager
Administrative support
Other
Therapist (RT, PT, OT, or speech)
Clinical social worker
Pharmacist
Technician
Technologist
Clinical support
Nurses aide, CNA, PCA, or PCT
Nurse
0
10
20
30
40
50
Participants reporting emotional exhaustion, %
2019
2020
2021-2022

Burnout is associated with:

Lower Patient Satisfaction

Aiken et al. BMJ 2012;344: e1717
Vahey, Aiken et al. Med Care. 2004 February; 42(2 Suppl): II57–II66.

Infections

Cimiotti, Aiken, Sloane and Wu. Am J Infect Control. 2012 Aug;40(6):486–90.

Medication Errors

Fahrenkopf et al. BMJ. 2008 Mar 1;336(7642):488–91.

Higher Standardized Mortality Ratios

Welp, Meier & Manser. Front Psychol. 2015 Jan 22;5:1573.

Am I burned out?

You try to be everything to everyone
You get to the end of a hard day at work, and feel like you have not made a meaningful difference
You feel like the work you are doing is not recognized
You identify so strongly with work that you lack a reasonable balance between work and your personal life
Your job varies between monotony and chaos
You feel you have little or no control over your work
You work in healthcare

Burnout is intense, can we cause it to go down?

Journal of Perinatology
https://doi.org/10.1038/s41372-021-01100-y

ARTICLE

Randomized controlled trial of the "WISER" intervention to reduce healthcare worker burnout

Jochen Profit[1,2] · Kathryn C. Adair[3,4] · Xin Cui[1,2] · Briana Mitchell[1] · Debra Brandon[5,6] · Daniel S. Tawfik[7] · Joseph Rigdon[8] · Jeffrey B. Gould[1,2] · Henry C. Lee[1,2] · Wendy L. Timpson[9] · Martin J. McCaffrey[10] · Alexis S. Davis[1] · Mohan Pammi[11] · Melissa Matthews[12] · Ann R. Stark[13] · Lu-Ann Papile[14] · Eric Thomas[15] · Michael Cotten[16] · Amir Khan[14] · J. Bryan Sexton[3,4]

Received: 13 January 2021 / Revised: 26 April 2021 / Accepted: 6 May 2021

Abstract

Objective Test web-based implementation for the science of enhancing resilience (WISER) intervention efficacy in reduc healthcare worker (HCW) burnout.

Design RCT using two cohorts of HCWs of four NICUs each, to improve HCW well-being (primary outcome: burnc Cohort 1 received WISER while Cohort 2 acted as a waitlist control.

Results Cohorts were similar, mostly female (83%) and nurses (62%). In Cohorts 1 and 2 respectively, 182 and 299 initi WISER, 100 and 176 completed 1-month follow-up, and 78 and 146 completed 6-month follow-up. Relative to cont WISER decreased burnout (−5.27 (95% CI: −10.44, −0.10), $p = 0.046$). Combined adjusted cohort results at 1-mc showed that the percentage of HCWs reporting concerning outcomes was significantly decreased for burnout (−6.3% (9 CI: −11.6%, −1.0%); $p = 0.008$), and secondary outcomes depression (−5.2% (95%CI: −10.8, −0.4); $p = 0.022$) work-life integration (−11.8% (95%CI: −17.9, −6.1); $p < 0.001$). Improvements endured at 6 months.

Conclusion WISER appears to durably improve HCW well-being.

Clinical Trials Number NCT02603133; https://clinicaltrials.gov/ct2/show/NCT02603133

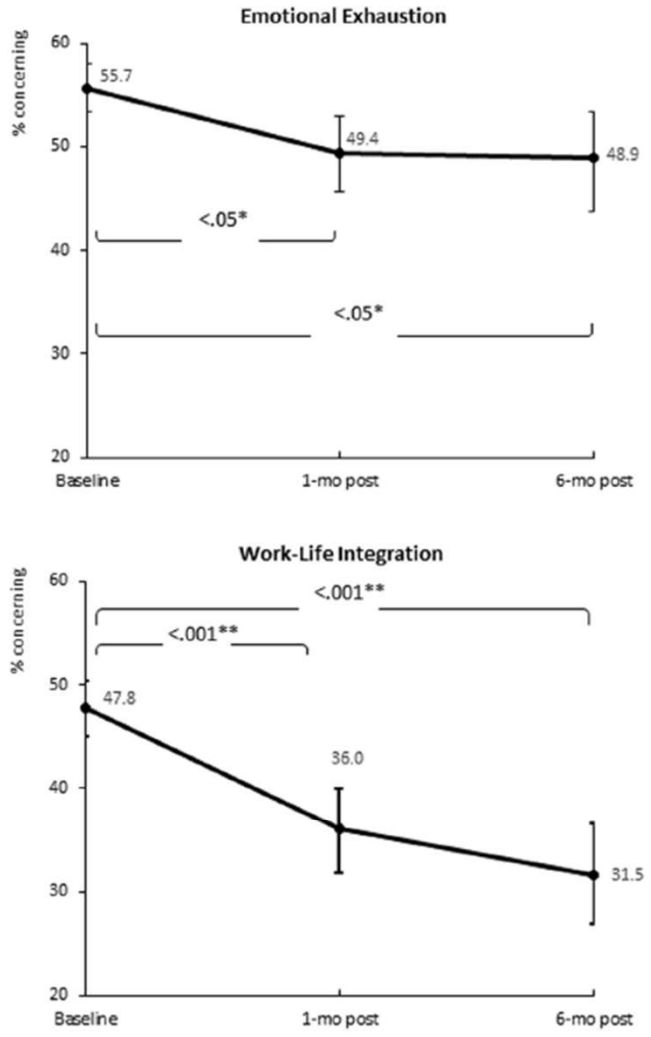


Fig. 2 Effect of WISER on the percent concerning scale. Statistical c month post provided in brackets.

Overview of well-being and bite-sized strategies

The Science of Health Care Worker Burnout

Assessing and Improving Health Care Worker Well-Being

Kyle Rehder, MD; Kathryn C. Adair, PhD; J. Bryan Sexton, PhD

• ***Context.***—**Problems with health care worker (HCW) well-being have become a leading concern in medicine given their severity and robust links to outcomes like medical error, mortality, and turnover.**

Objective.—**To describe the state of the science regarding HCW well-being, including how it is measured, what outcomes it predicts, and what institutional and individual interventions appear to reduce it.**

Data Sources.—**Peer review articles as well as multiple large data sets collected within our own research team are used to describe the nature of burnout, associations with institutional resources, and individual tools to improve well-being.**

Conclusions.—**Rates of HCW burnout are alarmingly high, placing the health and safety of patients and HCWs at risk. To help address the urgent need to help HCWs, we summarize some of the most promising early interventions, and point toward future research that uses standardized metrics to evaluate interventions (with a focus on low-cost institutional and personal interventions).**

(*Arch Pathol Lab Med.* 2021;145:1095–1109; doi: 10.5858/arpa.2020-0557-RA)

"What is it that every leader. . .never wants, always has, often denies, and painfully mismanages?

Workforce burnout."

—The Wellness Troll

The ability to predict clinical and operational outcomes at the work setting level is essential in health care quality improvement. Health care worker (HCW) well-being is one of a small handful of work setting variables with this potent power. Similar to leadership concerns about staffing levels, from an operational perspective it is helpful to think of HCW well-being as workers' ability to "get the work done" and to be ready for the next task or challenge. We will take a deep dive into well-being, and in particular the variable of HCW emotional exhaustion as an essential metric predictive of clinical and operational outcomes, as well as patient and HCW outcomes. To manage and understand a workforce, it is instructive to assess and improve workforce well-being.

Before the global pandemic of 2020 placed an even greater strain on busy and stressed HCWs, the impact and consequences of HCW burnout had already captured the attention of national and international health care leaders. Organizations that have come out with formal statements around the need to address burnout include the World Health Organization, the National Academy of Medicine, the Combined Critical Care Societies, the Accreditation Council for Graduate Medical Education, and many others.[1–4] The alarm bells have rung loudly for several years in fact, but the existing peer-reviewed literature does not provide a clear road map for leaders struggling to make evidence-based decisions. A PubMed search on "burnout" during the last 2 decades reveals the number of burnout articles published each year in the medical literature have increased more than 6-fold, with an even more rapid rise in the last 3 years. Remarkably, out of more than 16 000 published articles on burnout in the medical literature, there are fewer than 50 randomized controlled trials focused on interventions to improve burnout in HCWs. Many of these are classified as pilot studies, and almost all have small numbers (<100 participants) or limited follow-up. Many more articles discuss the prevalence or epidemiology of burnout, postulating about potential causes but with minimal data to support theories, and with little direction on potential solutions. Perhaps it should not be surprising that this paucity of evidence scattered throughout the literature interferes with leadership efforts to manage workforce well-being coherently and effectively.

Given the scarcity of high-quality articles investigating HCW burnout, this review seeks to detail the environmental and psychologic factors that drive the pathophysiology of burnout, and to synthesize the existing evidence supporting effective tools to reduce burnout and improve HCW well-being. We will also share our lessons learned from our

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Supplemental digital content is available for this article at https://meridian.allenpress.com/aplm in the September 2021 table of contents.

From the Duke Center for Healthcare Safety and Quality, Duke University Health System, Durham, North Carolina.

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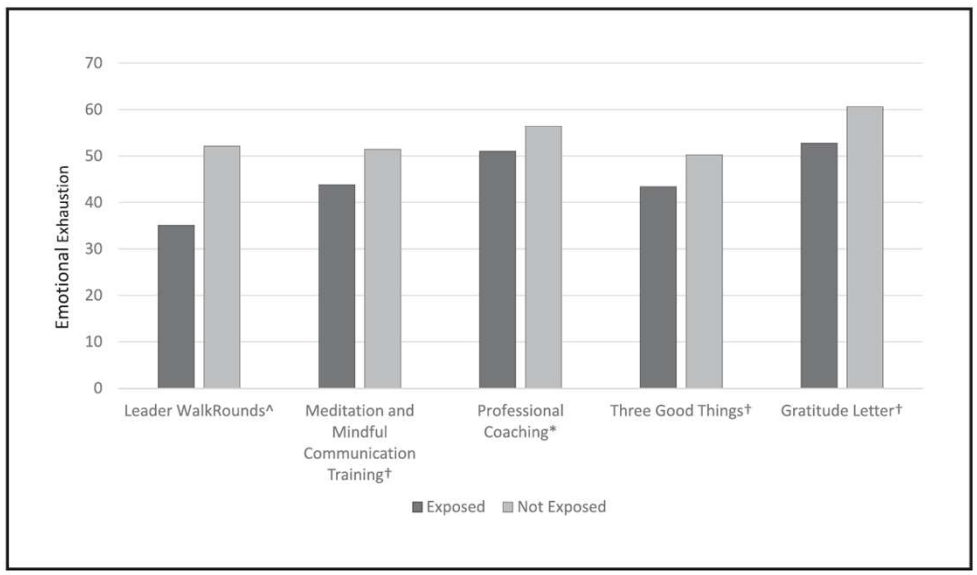
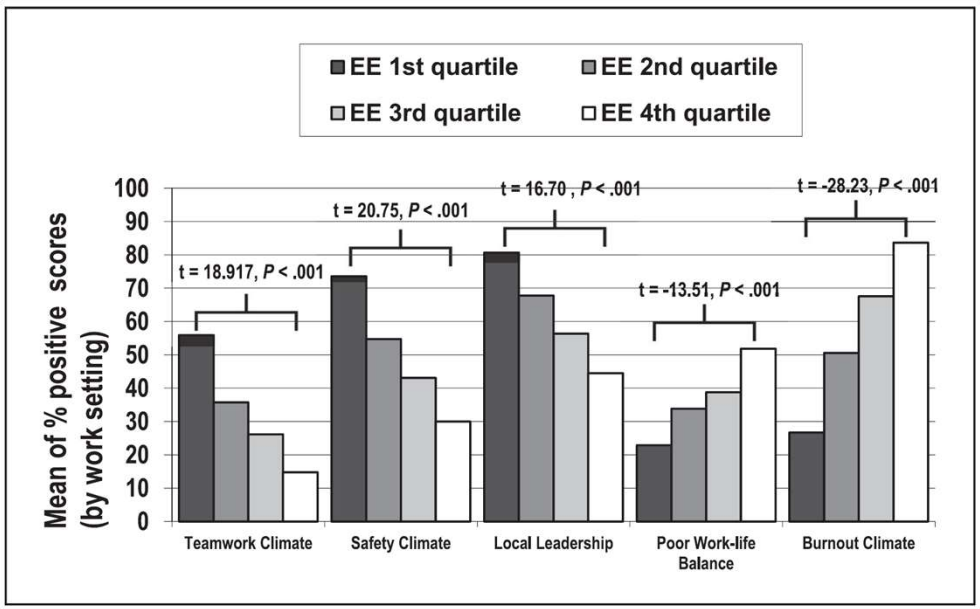




Psychology of Burnout

Your focus and reflections determine your reality

Analogy:

- Noticing something about the world
- Commenting on it briefly through your mobile phone
- Seeing what other people commented on

Psychological Science OnlineFirst, published on January 20, 2015 as doi:10.1177/0956797614557867

Research Article

Psychological Science
1–11

DOI: 10.1177/0956797614557867
pss.sagepub.com

Psychological Language on Twitter Predicts County-Level Heart Disease Mortality

Johannes C. Eichstaedt[1], Hansen Andrew Schwartz[1,2], Margaret L. Kern[1,3], Gregory Park[1], Darwin R. Labarthe[4], Raina M. Merchant[5], Sneha Jha[2], Megha Agrawal[2], Lukasz A. Dziurzynski[1], Maarten Sap[1], Christopher Weeg[1], Emily E. Larson[1], Lyle H. Ungar[1,2], and Martin E. P. Seligman[1]

[1]Department of Psychology, University of Pennsylvania; [2]Department of Computer and Information Science, University of Pennsylvania; [3]Graduate School of Education, University of Melbourne; [4]School of Medicine, Northwestern University; and [5]Department of Emergency Medicine, University of Pennsylvania

Twitter Topics Negatively Correlated With County-Level AHD Mortality

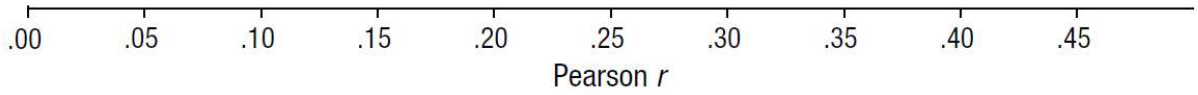
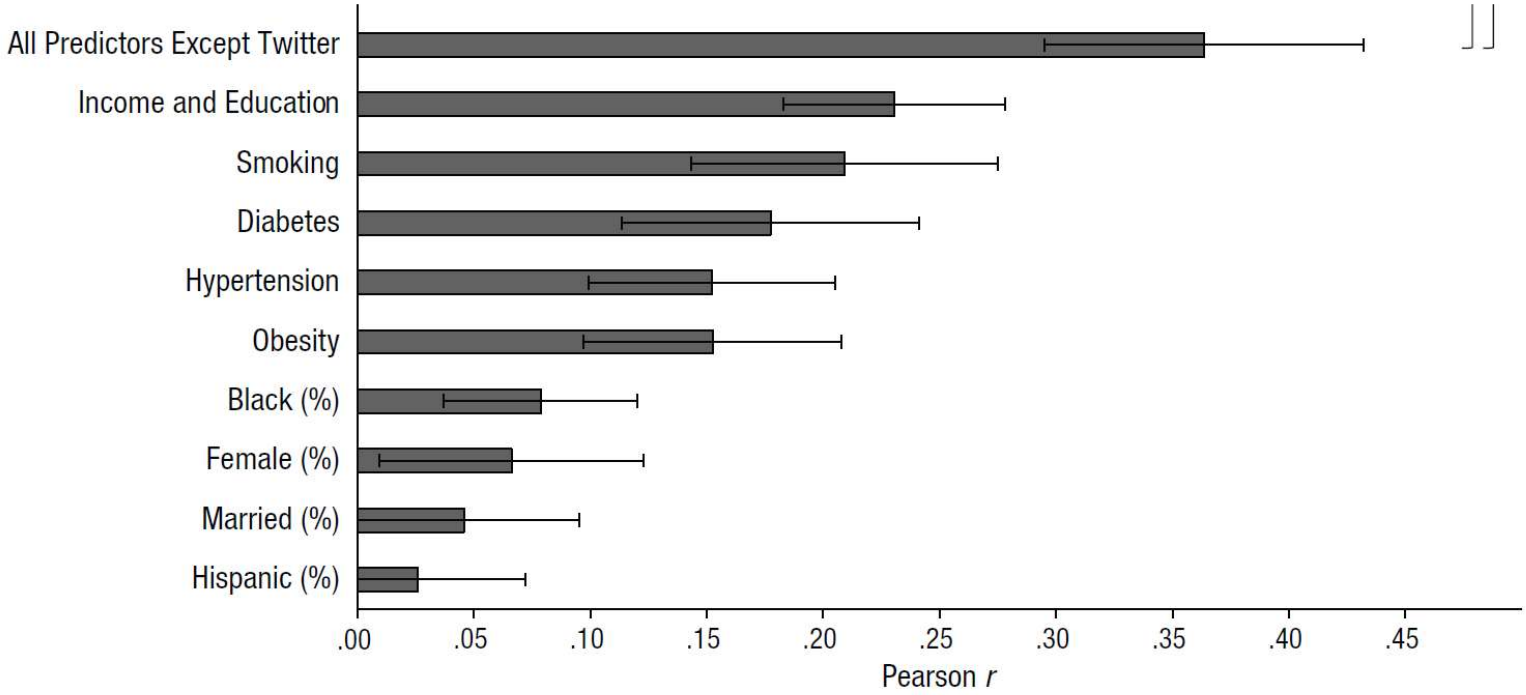


Fig. 2. Performance of models predicting age-adjusted mortality from atherosclerotic heart disease (AHD). For each model, the graph shows the correlation between predicted mortality and actual mortality reported by the Centers for Disease Control and Prevention. Predictions were based on Twitter language, socioeconomic status, health, and demographic variables singly and in combination. Higher values mean better prediction. The correlation values are averages obtained in a cross-validation process used to avoid distortion of accuracy due to chance (overfitting; for details, see the text). Error bars show 95% confidence intervals. Asterisks indicate significant differences between models (*$p < .05$).



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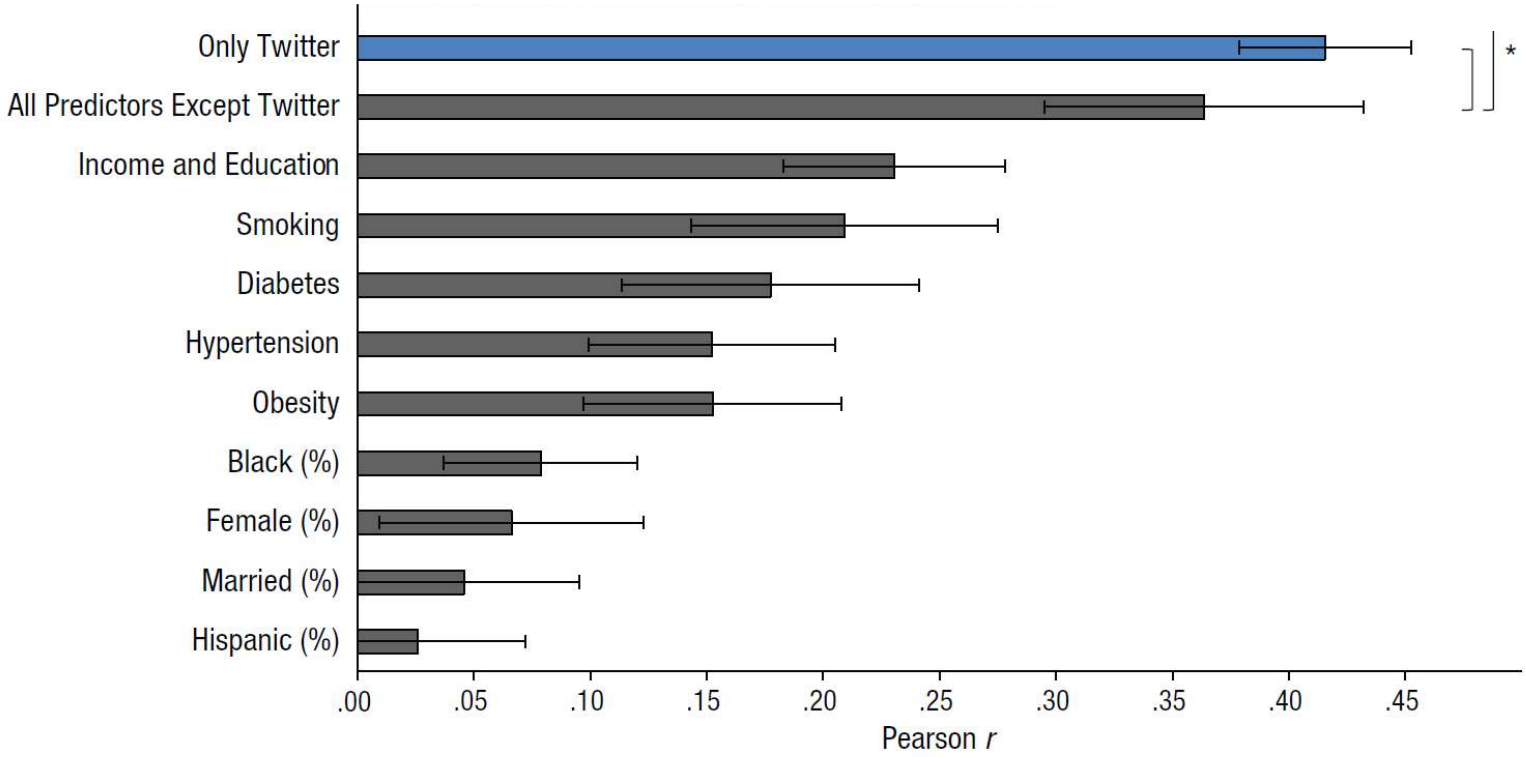

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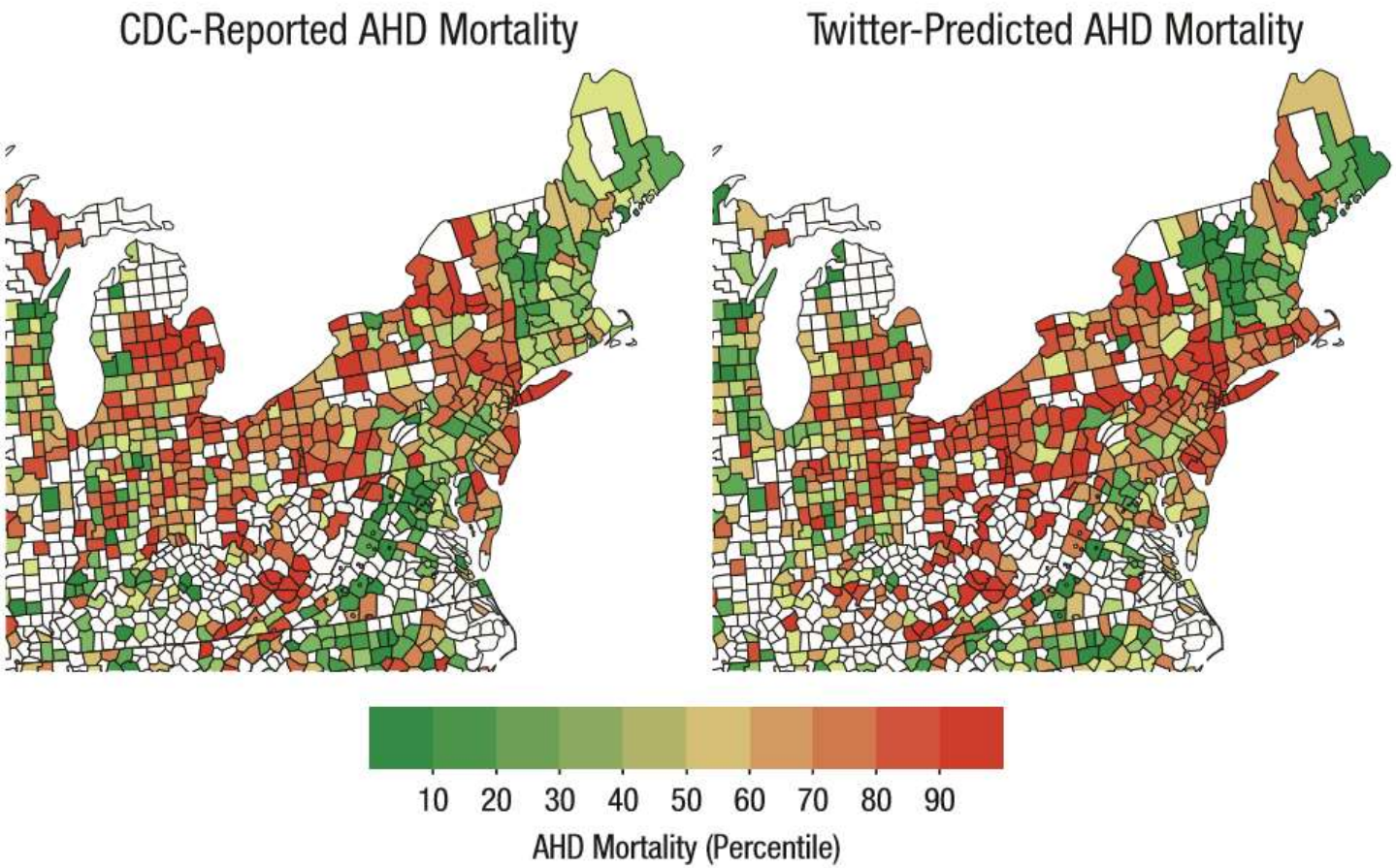
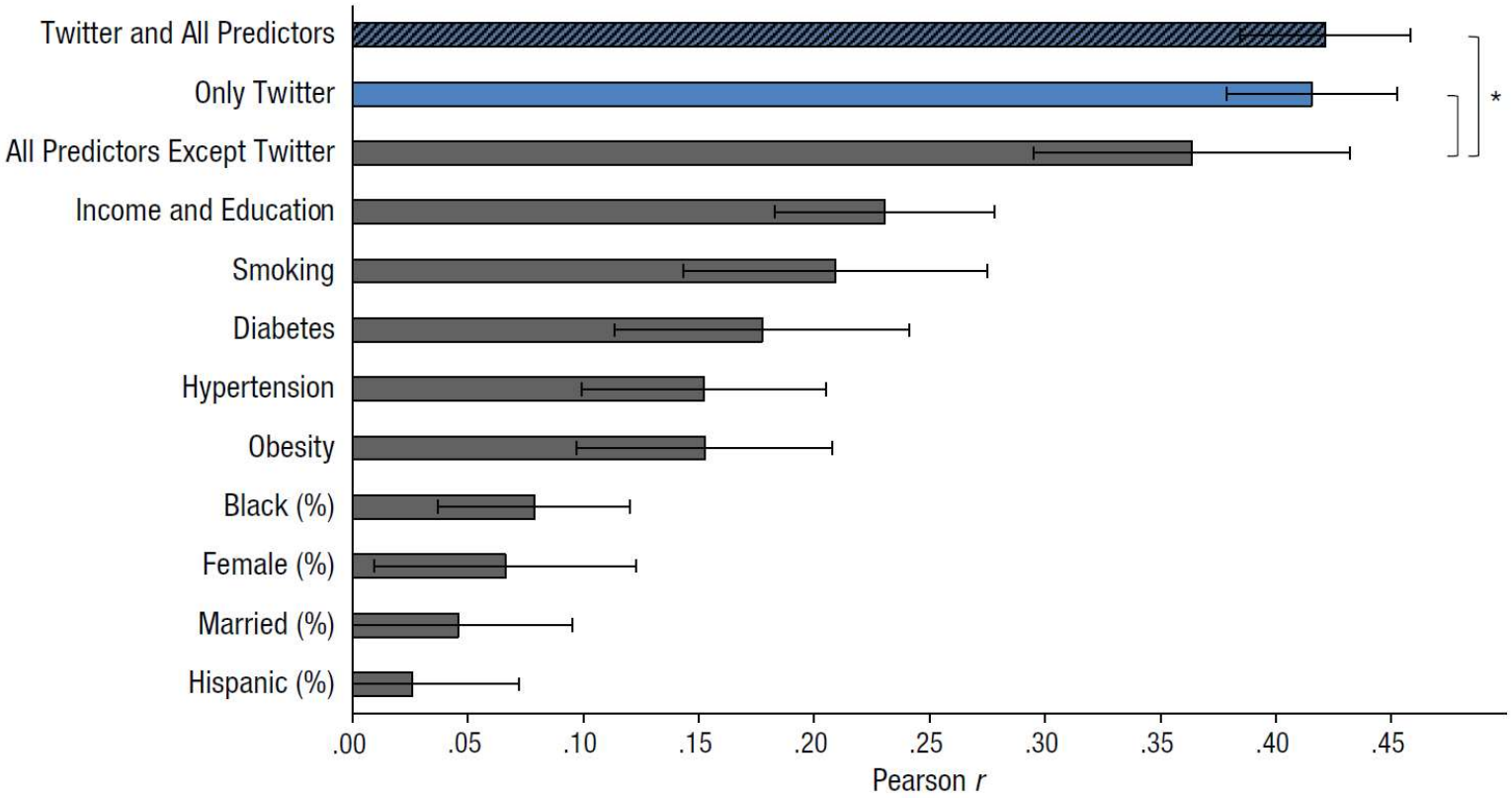


Fig. 3. Map of counties in the northeastern United States showing age-adjusted mortality from atherosclerotic heart disease (AHD) as reported by the Centers for Disease Control and Prevention (CDC; left) and as estimated through the Twitter-language-only prediction model (right). The out-of-sample predictions shown were obtained from the cross-validation process described in the text. Counties for which reliable CDC or Twitter language data were unavailable are shown in white.



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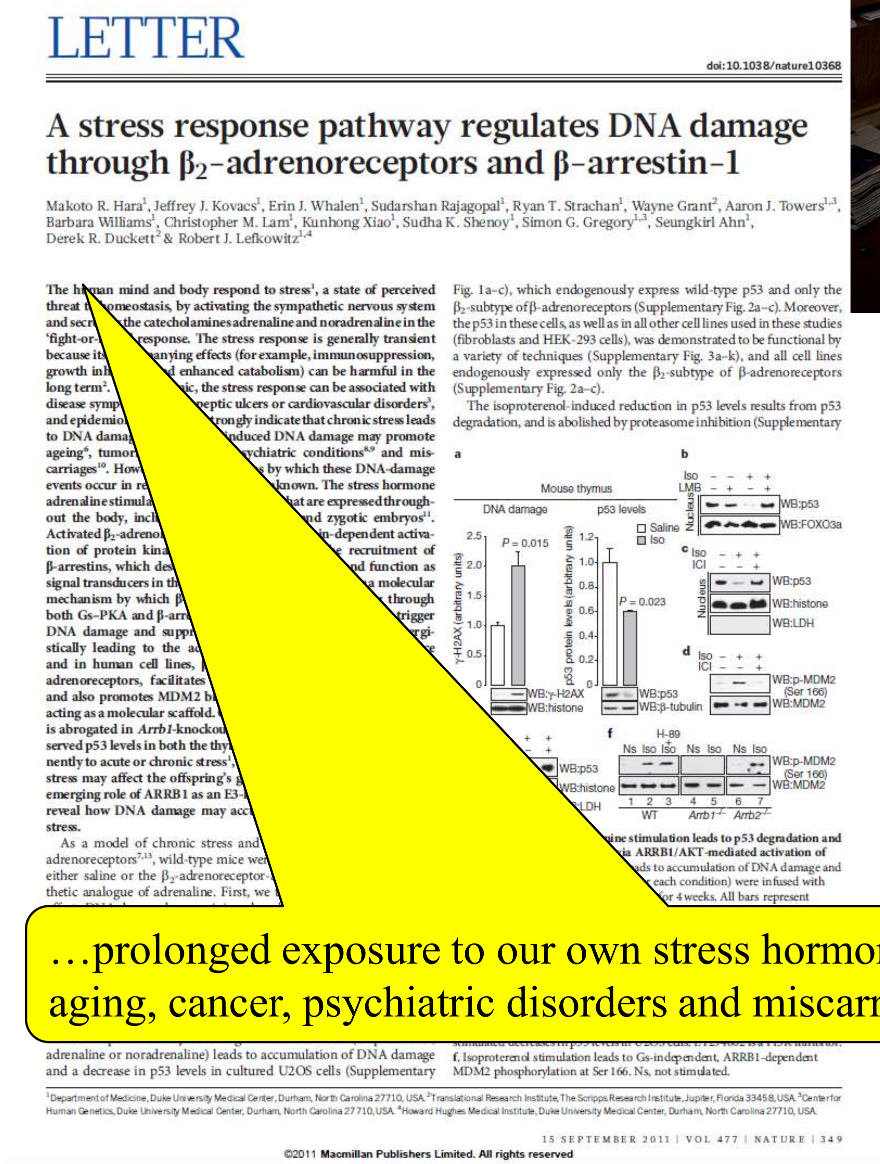
@JBryanSexton1

What is burnout?

Burnout, at its core,
is the impaired ability
to experience
positive emotion


How do you feel joy when stress is unavoidable?



LETTER

doi:10.1038/nature10368

A stress response pathway regulates DNA damage through β_2-adrenoreceptors and β-arrestin-1

Makoto R. Hara[1], Jeffrey J. Kovacs[1], Erin J. Whalen[1], Sudarshan Rajagopal[1], Ryan T. Strachan[1], Wayne Grant[2], Aaron J. Towers[1,3], Barbara Williams[1], Christopher M. Lam[1], Kunhong Xiao[1], Sudha K. Shenoy[1], Simon G. Gregory[1,3], Seungkirl Ahn[1], Derek R. Duckett[2] & Robert J. Lefkowitz[1,4]

**The h… man mind and body respond to stress[1], a state of perceived
threat t… omeostasis, by activating the sympathetic nervous system
and secr… the catecholamines adrenaline and noradrenaline in the
'fight-or-… response. The stress response is generally transient
because its … anying effects (for example, immunosuppression,
growth inh… d enhanced catabolism) can be harmful in the
long term[2]. … ic, the stress response can be associated with
disease symp… peptic ulcers or cardiovascular disorders[3],
and epidemio… trongly indicate that chronic stress leads
to DNA dama… induced DNA damage may promote
ageing[6], tumor… ychiatric conditions[8,9] and mis-
carriages[10]. How… s by which these DNA-damage
events occur in re… known. The stress hormone
adrenaline stimula… hat are expressed through-
out the body, incl… nd zygotic embryos[11].
Activated β_2-adreno… in-dependent activa-
tion of protein kina… e recruitment of
β-arrestins, which des… nd function as
signal transducers in th… a molecular
mechanism by which β… through
both Gs–PKA and β-arr… trigger
DNA damage and suppr… ergi-
stically leading to the ac… e
and in human cell lines, …
adrenoreceptors, facilitates …
and also promotes MDM2 b…
acting as a molecular scaffold. …
is abrogated in *Arrb1*-knockou…
served p53 levels in both the thy…
nently to acute or chronic stress[1], …
stress may affect the offspring's g…
emerging role of ARRB1 as an E3-…
reveal how DNA damage may acc…
stress.**

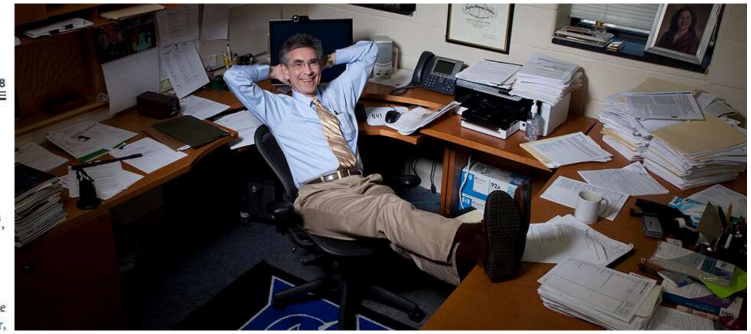
As a model of chronic stress and …
adrenoreceptors[7,13], wild-type mice we…
either saline or the β_2-adrenoreceptor-…
thetic analogue of adrenaline. First, we …

…
adrenaline or noradrenaline) leads to accumulation of DNA damage and a decrease in p53 levels in cultured U2OS cells (Supplementary Fig. 1a–c), which endogenously express wild-type p53 and only the β_2-subtype of β-adrenoreceptors (Supplementary Fig. 2a–c). Moreover, the p53 in these cells, as well as in all other cell lines used in these studies (fibroblasts and HEK-293 cells), was demonstrated to be functional by a variety of techniques (Supplementary Fig. 3a–k), and all cell lines endogenously expressed only the β_2-subtype of β-adrenoreceptors (Supplementary Fig. 2a–c).

The isoproterenol-induced reduction in p53 levels results from p53 degradation, and is abolished by proteasome inhibition (Supplementary

…ine stimulation leads to p53 degradation and … ia ARRB1/AKT-mediated activation of … …ads to accumulation of DNA damage and … each condition) were infused with … for 4 weeks. All bars represent …
… **f**, Isoproterenol stimulation leads to Gs-independent, ARRB1-dependent MDM2 phosphorylation at Ser 166. Ns, not stimulated.

[1]Department of Medicine, Duke University Medical Center, Durham, North Carolina 27710, USA. [2]Translational Research Institute, The Scripps Research Institute, Jupiter, Florida 33458, USA. [3]Center for Human Genetics, Duke University Medical Center, Durham, North Carolina 27710, USA. [4]Howard Hughes Medical Institute, Duke University Medical Center, Durham, North Carolina 27710, USA.



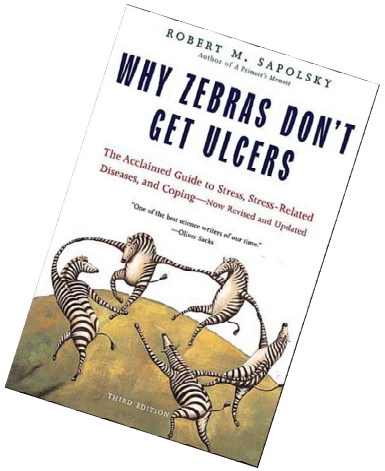
Robert J Lefkowitz, MD

…prolonged exposure to our own stress hormones damages our DNA, promoting aging, cancer, psychiatric disorders and miscarriages…

Stress Comes from Things you can not Predict and/or Control

"Stress can wreak havoc with your metabolism, raise your blood pressure, burst your white blood cells, make you flatulent, ruin your sex life, and if that is not enough, possibly damage your brain."

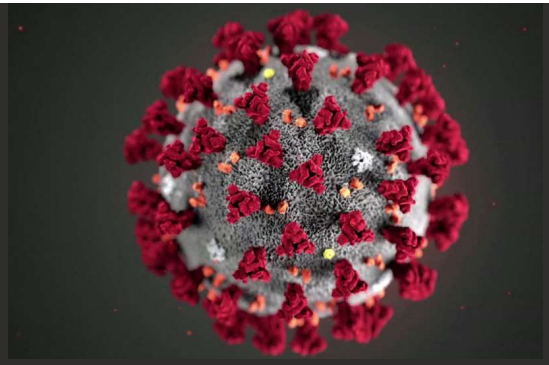
--Dr. Robert Sapolsky, Professor of Biological Sciences and Neuroscience at Stanford University



Source: J. Bryan Sexton, PhD

3F's

QUESTION:

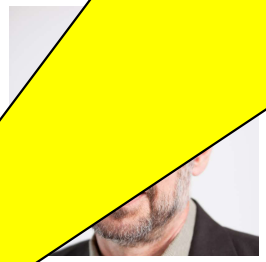


If stress comes from things you can't predict/control, what do we focus on during a global pandemic?

psychological and social stressors were associated with an overproduction of pro-inflammatory cytokines in response to cold and influenza viral challenges – increasing risk of illness (rhinovirus and corona virus**)**

Psychosocial Vulner
Respiratory Infectio
for Susceptibility to
2019 (COVID-19)

ww.psychologicalscience.org/PPS
SAGE



Sheldon Cohen
Department of Psychology, Carnegie Mellon University

Abstract

For 35 years, our laboratory has been in identifying psychosocial factors that predict who becomes ill when they are exposed to a virus affecti upper respiratory tract. To pursue this question, we used a unique viral-challenge design in which we asse behavioral, social, and psychological factors in healthy adults. We subsequently exposed these adults to a cold influenza virus and then monitored them in quarantine for 5 to 6 days for onset of respiratory illness. Factors we found to be associated with greater risk of respiratory illnesses after virus exposure included smoking, ingesting an inadequate level of vitamin C, and chronic psychological stress. Those associated with decreased risk included social integration, social support, physical activity, adequate and efficient sleep, and moderate alcohol intake. We cautiously suggest that our findings could have implications for identifying who becomes ill when exposed to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus responsible for coronavirus disease 2019 (COVID-19). This argument is based on evidence that the associations we report are replicable across multiple respiratory viruses and that the pathways found to link psychosocial factors to colds and influenza may play similar roles in COVID-19.

Table 2. Summary of Psychosocial Factors Associated With Risk for Upper Respiratory Infectious Disease Among Those Exposed to a Virus

Psychosocial factor	Association with upper respiratory disease
Health-related beha	
Smoking	
Alcohol consump	
Exercise	
Vitamin C	
Sleep	
Psychological stress	
Aggregate measu	
Perceived stress	
Severe stressful e	
Interpersonal	
Social integration	
Social support	

Life is hard right now,
spend time with people you like,
eat delicious food,
and laugh at the calamities of the world

Bite sized tool coming up…

Please use your mobile:

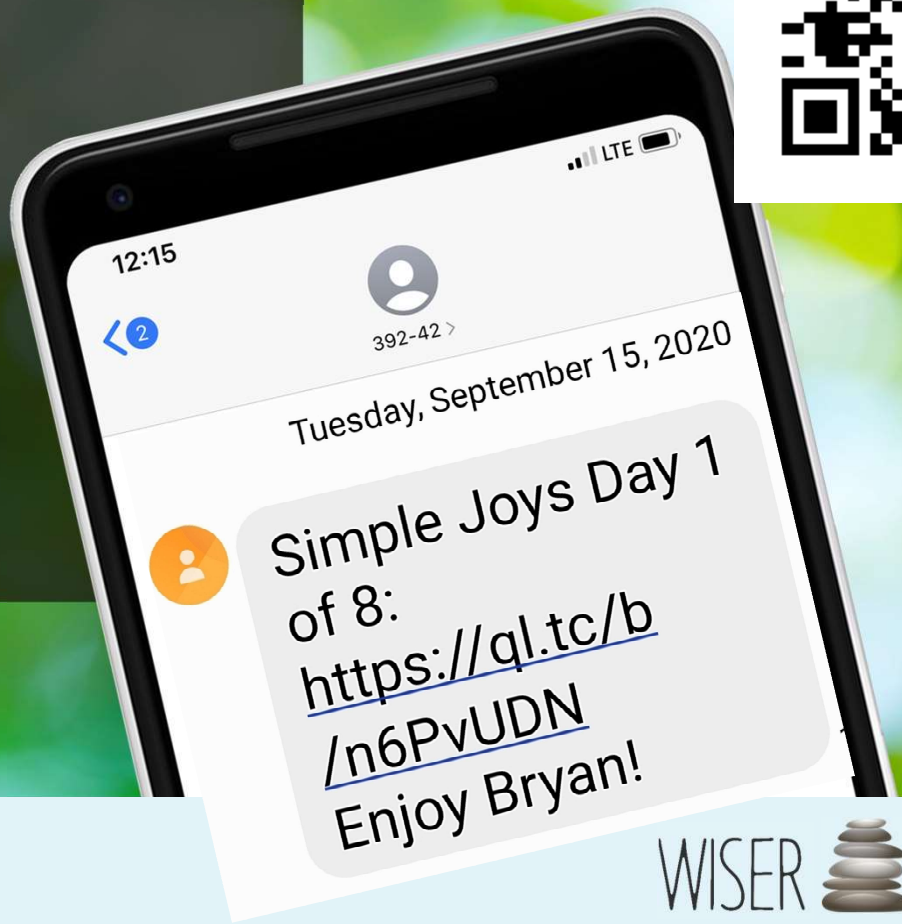
bit.ly/joyreflections


bit.ly/joyreflections
12:15
LTE
2
392-42
Text Message
Tuesday, September 15, 2020
Simple Joys Day 1 of 8:
https://ql.tc/b/n6PvUDN
Enjoy Bryan!


bit.ly/joyreflections
12:15
LTE
2
392-42
Text Message
Tuesday, September 15, 2020
PlayFull
Instructions:
For the next week, please be on the lookout for simple joys and moments of playfulness. If you can get a related picture using the camera on your phone, that would be helpful, but the most important thing is that you are open to noticing joy during this 8 day journey. If you find it difficult to notice joy, try the more deliberate route of being playful in an interaction or activity. Keep it over time. We will check in with you each day. There are

bit.ly/joyreflections

- Time to enroll:
  2-5 minutes
- Time each evening:
  2 minutes
- Time to finish:
  8 days



WISER

Burnout is contagious,
but so is well-being…

Pausing and reflecting is the secret sauce for:

- individual interventions
- institutional interventions
- effective leadership practices

Three Good Things	1: bit.ly/start3gt
Looking Forward Tool	2: bit.ly/fwdtool
Simple Joys Tool	3: bit.ly/joyreflections
Cultivate Gratitude	4: bit.ly/grattool
Cultivate Work-Life Balance	5: bit.ly/wlbtool
Cultivate Mindfulness	6: bit.ly/3goodminutes
Better Sleep Tool	7: bit.ly/sleeptool
Self Compassion Tool	8: bit.ly/selfcomptool
Positive Feedback Tool	9: bit.ly/posfbtool
Cultivate Awe	10: bit.ly/awetool

DukeMedicine

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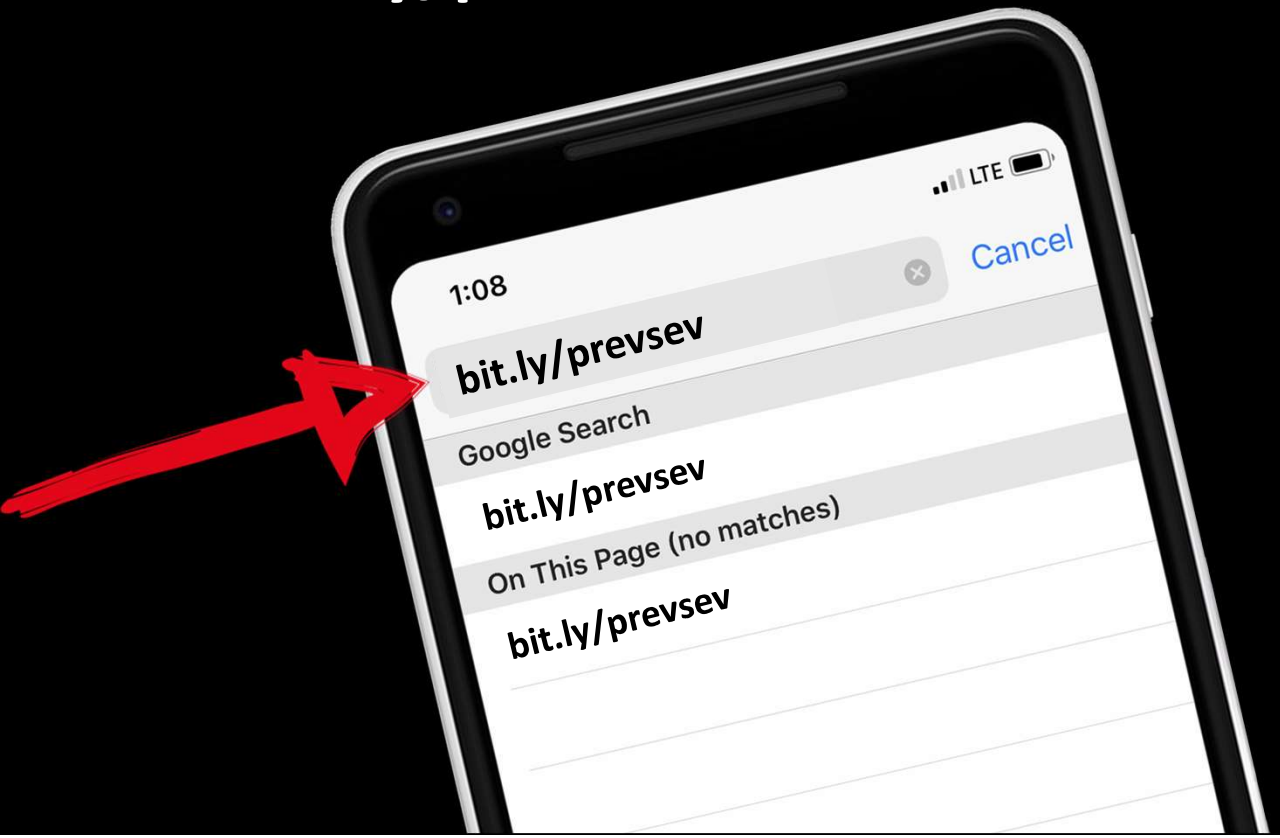
Cultivate Awe	10: bit.ly/awetool

To enroll:
bit.ly/wellbduke

DukeMedicine

For continuing education credit:

Go to: bit.ly/prevsev



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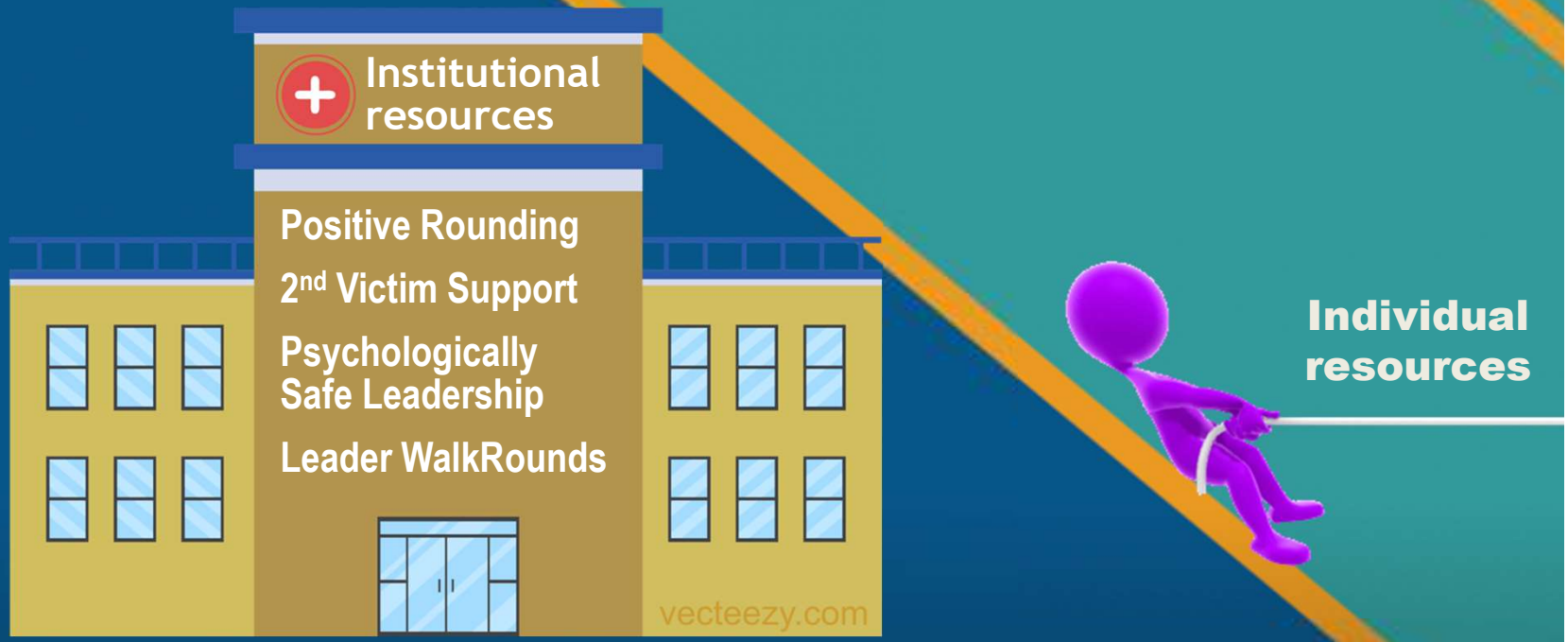
or use QR code

Enduring Resources

(for Pausing & Reflecting)



WELCOME TO WELL-B

www.hsq.dukehealth.org

bit.ly/joyreflections | 2 minutes | 8 days
Simple joys. Cultivate joy and playfulness.

bit.ly/awetool | 10 minutes | 2 days
Cultivate awe.

bit.ly/grattool | 10 minutes | 2 days
Cultivate gratitude.

bit.ly/start3ft | 2 minutes | 8 days
3 Funny Things. Cultivate humor.

bit.ly/wlbtool | 2 minutes | 4 days
Cultivate work-life balance.

bit.ly/fwdtool | 2 minutes | 8 days
Looking Forward. Cultivate hope.

bit.ly/inttool | 5 minutes | 3 days
Interest Tool. Cultivate engagement.

bit.ly/3goodminutes | 3 minutes | 8 days
3 Good Minutes. Cultivate mindfulness.

bit.ly/doortool | 10 minutes | 2 days
1 Door Closes, Another Opens. Cultivate perspective.

bit.ly/posfbtool | 3 minutes | 8 days
Positive Feedback. Cultivate the ability to uplift others.

bit.ly/kindtext | 3 minutes | 8 days
Cultivate kindness.

bit.ly/selfcomptool | 10 minutes | 2 days
Self-Compassion. Cultivate a kinder internal voice.

bit.ly/serenitytool | 2 minutes | 4 days
Serenity. Cultivate routines and rituals.

bit.ly/strengthstool | 3 minutes | 8 days
Signature Strengths. Cultivate your strengths.

bit.ly/sleeptool | 2 minutes | 8 days
Sleep Tool. Cultivate rest.

bit.ly/start3gt | 2 minutes | 15 days
3 Good Things. Cultivate your uplifts.

bit.ly/3wiser | 5-in-1 tool | 10 days
WISER. A sampler of multiple resilience tools.

bit.ly/storyburn | 20 minutes | 3 days
Your Burnout Story. Cultivate healing through reflective writing

Q & A

Oct 10-13 2022
4 hr essentials | bit.ly/wellbduke

Cont Ed Credit | bit.ly/prevsev

Tool | bit.ly/joyreflections


How else can I help folks with well-being right now?

WELL-B Evidence-Based Pandemic Recovery Series For Healthcare Workers

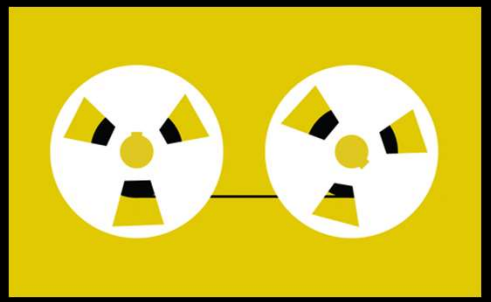
J. Bryan Sexton, PhD
Director, Duke Center for Healthcare Safety and Quality
Duke University Health System

WELL-B Bite-sized Evidence-based Well-being Webinar Series

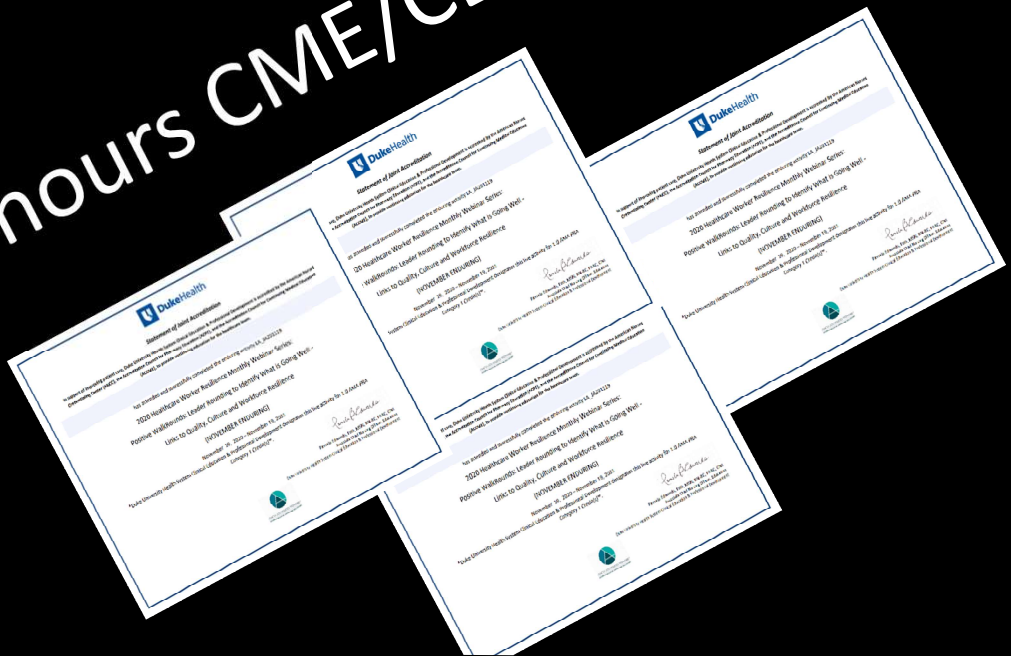
Duke Center for Healthcare Safety and Quality

DukeHealth

Recorded

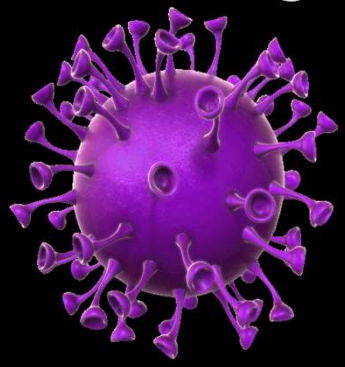


4 hours CME/CEU



Well-being Essentials for Learning Life-Balance (WELL-B)

- Work-Life Integration: Measuring & Understanding Health Care Worker Well-Being
- Gratitude as Easy Well-Being: New Science on an Old Practice
- The Voice in Your Head isn't Always Kind: Evidence-Based Self-Compassion
- Science of Wow: Cultivating Awe and Wonder as a Well-Being Strategy



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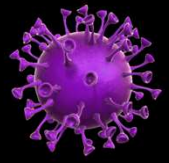
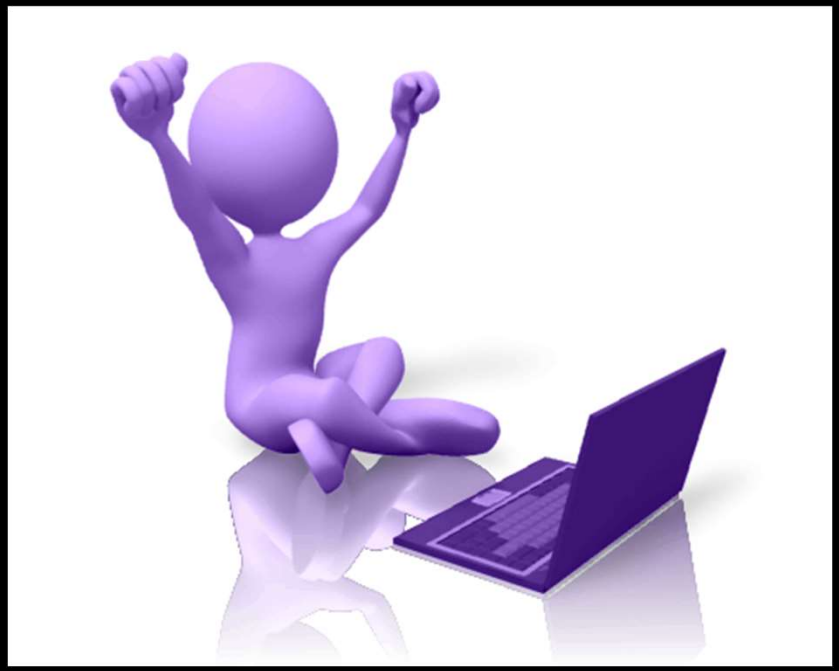


Cultivate Work-Life Balance bit.ly/wlbtool
Cultivate Gratitude bit.ly/grattool
Self Compassion Tool bit.ly/selfcomptool
Cultivate Awe bit.ly/awetool

Michigan Hospital Association March 2022 WELL-B Emotional Exhaustion **decreased** from 70.3% to 49.8%!



To enroll:

bit.ly/wellbduke

or scan QR code

RECHARGE FROM PANDEMIC EXHAUSTION

Join our bite-sized, evidence-based, well-being essentials series!

To enroll:
bit.ly/wellbduke
or scan the QR code

Open to every healthcare worker (clinical and non-clinical) on behalf of the Duke Center for Healthcare Safety and Quality.

Why? *Emotional exhaustion has never been higher in healthcare*

Bite-sized strategies can significantly enhance your well-being, and through sharing, the well-being of your co-workers.

The 4 hours include our most popular well-being strategies on cultivating work-life balance, gratitude, self-compassion, and awe.

Give yourself 4 hours of well-being, or even better, do it with a friend.

Duke Center *for*
Healthcare Safety and Quality

Autobiography In Five Short Chapters
by Portia Nelson

I

I walk down the street.
There is a deep hole in the sidewalk
I fall in.
I am lost ... I am helpless.
It isn't my fault.

It takes me forever to find a way out.

II

I walk down the same street.
There is a deep hole in the sidewalk.
I pretend I don't see it.
I fall in again.
I can't believe I am in the same place
but, it isn't my fault.

It still takes a long time to get out.

III

I walk down the same street.
There is a deep hole in the sidewalk.
I see it is there.
I still fall in ... it's a habit.
my eyes are open
I know where I am.
It is my fault.

I get out immediately.

IV

I walk down the same street.
There is a deep hole in the sidewalk.

I walk around it.

V

I walk down another street.

Q & A

Oct 10-13 2022
4 hr essentials | bit.ly/wellbduke

Cont Ed Credit | bit.ly/prevsev

Tool | bit.ly/joyreflections

Turning waste-wood into something beautiful and giving it away

Emotions are never wrong, they tell us important data about what needs to be acknowledged and addressed

life is hard right now, so spend time with people you like, eat, and laugh at the calamities of the world

be responsible for the energy you bring into the room

During a pandemic: cultivate **joy** and interpersonal connection

After a pandemic….. focus on hope

bit.ly/joyreflections | 2 minutes | 8 days
Simple joys. Cultivate joy and playfulness.

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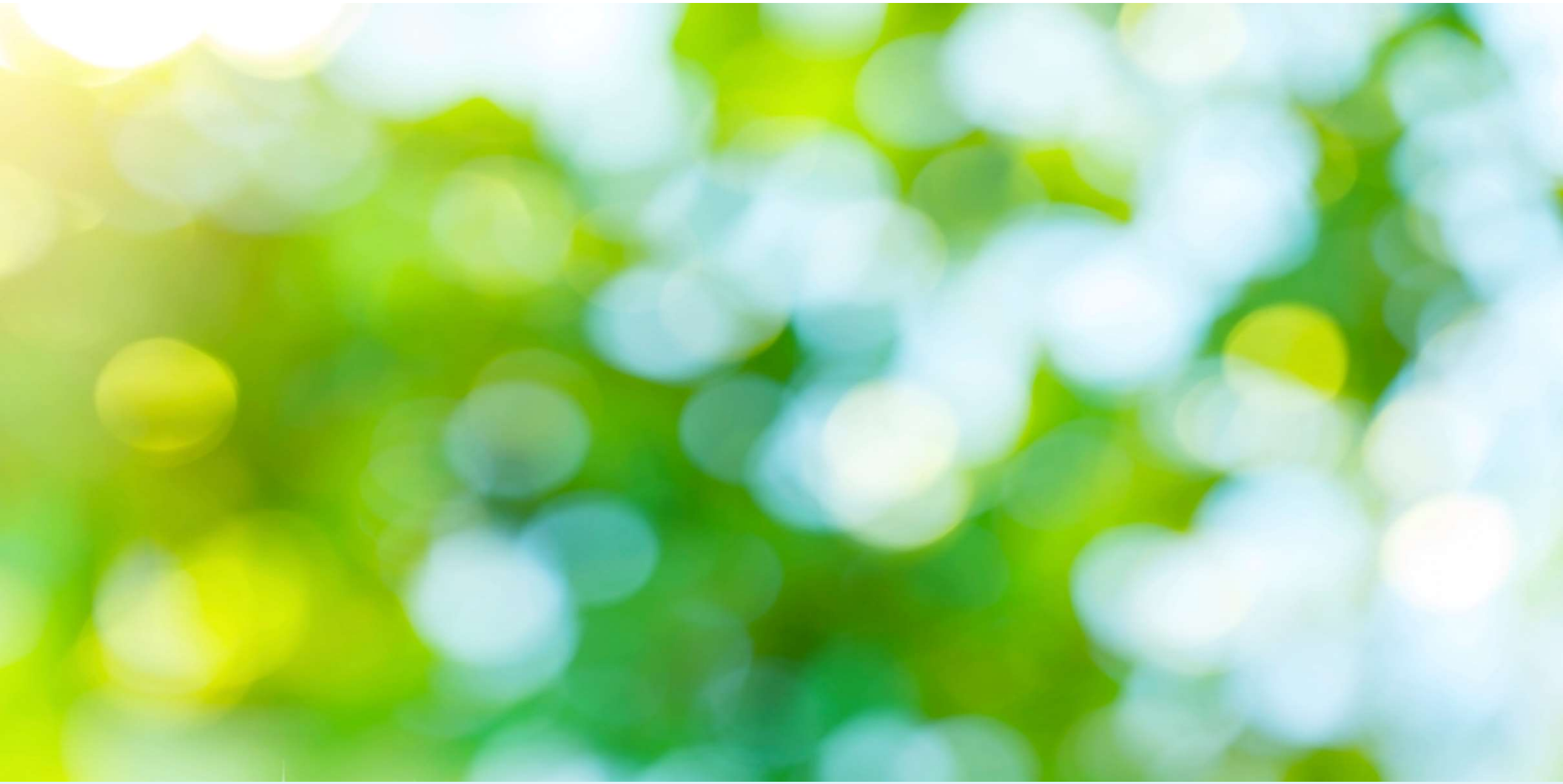

WISER