



Burnout

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In General, Work is Good for Mental Health

- **OBJECTIVE:** systematically summarize the health effects of employment.
- **RESULT:** 33 prospective studies were included, of which 23 were of high quality.
- **Strong evidence was found for a protective effect of employment on depression and general mental health.**
- Insufficient evidence was found for general health, physical health and mortality due to lack of studies or inconsistent findings.
- **CONCLUSION: This systematic review indicates that employment is beneficial for health, particularly for depression and general mental health.**

Job Satisfaction is Good for Your Health and Conversely Job Dissatisfaction is Hazardous to Your Health

- A systematic review and meta-analysis of 485 studies with a combined sample size of 267,995 individuals.
- Evaluating the research evidence linking self-report measures of job satisfaction to measures of physical and mental wellbeing.
- **Conclusion: The relationships found suggest that job satisfaction level is an important factor influencing the health of workers.**
- **Organizations should include the development of stress management policies to identify and eradicate work practices that cause most job dissatisfaction as part of any exercise aimed at improving employee health.**

Faragher, Cass, Cooper, 2005

Physicians and their Work

- In three large national cross sectional studies in 2011, 2014 and 2017 using the same methodology with other US workers as a control, **physicians expressed significantly more symptoms of burnout than other US workers** (Shanafelt, Boone, Tan, et al., 2012; Shanafelt, Hasan, Dyrbye et al., 2016; Shanafelt, West, Sinsky et al., 2019).
- In a more focused analysis, **US physicians had higher levels of cynicism and emotional exhaustion than other doctoral level workers** in the 2017 national survey (Shanafelt, Sinsky, Dyrbye et al., 2019).
- **Not all physician specialties are affected equally.**
- Substantial differences in burnout were observed by specialty, with the **highest rates among physicians at the front line of care access (family medicine, general internal medicine, and emergency medicine)** (Shanafelt, Hasan, Dyrbye et al., 2016).

Burnout is Not Limited to US Physicians

- In a 2019 Medscape survey of 20,000 physicians in the US, United Kingdom, France, Germany, Spain and Portugal found that by country **36% to 51% of the surveyed physicians described themselves as burnt out, depressed or both.**
- **The US was 4th out of six in the percentage of physicians describing themselves as burnout.**
- **The US tied for third with the United Kingdom with 4% of the surveyed physicians in each country describing themselves as depressed.**
- **The surveyed physicians in all six countries cited long working hours as the second most impactful factor causing their burnout.**

(<https://www.medscape.com/slideshow/2019-global-burnout-comparison-6011180#4>)

Medscape Multi-National Burnout Survey

Country	Burnout	Depression	Burnout Severity: Quitting	% Total Thinking About Quitting
UK	22%	4%	25%	5.5%
US	27%	4%	19%	5.1%
France	28%	6%	23%	6.4%
Portugal	38%	3%	20%	7.6%
Spain	37%	1%	9%	3.3%
Germany*	12%*	25%*	20%	2.4% or 7.4%*

Burnout: History and Definition

- **Burnout is the unintended net result of multiple, highly disruptive changes in society at large, the medical profession, and the healthcare system** (Rothenberger DA, 2017).
- The term was first used to describe job stress in a psychology article in 1974 describing observations of volunteer staff at a free clinic for patients with drug problems (Freudenberger, 1974).
- Burnout was originally defined as a stress induced problem commonly found amongst human service professionals, characterized by emotional exhaustion, a reduced sense of personal accomplishment, and depersonalization (Pines & Maslach, 1978).
- The World Health Organization in ICD-11 describes 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** (<https://www.who.int/mental-health/evidence/burn-out/en/>).

Burnout is Not Recognized as a Clinical Disorder

- The DSM 5 and the ICD-10 do not recognize burnout as a clinical syndrome.
- ICD 10 classifies burnout along with Type A behavior pattern, lack of relaxation and leisure, stress, non specified, inadequate social skills, and social role conflict and limitation of life activities due to disability as “**life management difficulties**” (<https://icd.who.int/browse10/2010/en>).
- The ICD-11 will define burnout as a **syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed**.
- ICD-11 will classify burnout as a “**occupational phenomenon**” in the chapter “Factors influencing health status or contact with health services”. (https://www.who.int/mental_health/evidence/burn-out/en/)

Does Anyone Know What This Picture Portrays?



Assessment of Burnout

- Definitions of burnout symptoms are not universally accepted but can include emotional exhaustion, cynicism, physical fatigue, cognitive weariness, disengagement and reduced feelings of work-related accomplishment.
- A recent meta-analysis by epidemiologists from Harvard, Yale, Medical University of South Carolina and the University of Michigan published in JAMA found “**at least 142 unique**” definitions of burnout used in studies of physicians and concluded that they could not establish a prevalence for burnout among physicians (Rotenstein, Torre, Ramos et al., 2018).
- Another recent meta-analysis found “**the distinction between burnout and depression is conceptually fragile**” (Bianchi, Schonfeld, Laurent, 2015).
- Two sets of authors have found that **burnout is a depressive condition** (Ahola, Hakanen, Perhoniemi, Mutanen, 2014; Bianchi, Schonfeld, Laurent, 2015).



Aspects of Physician Well-Being Belong to the Individual Physician, the Practice Setting and to the Healthcare Industry and its Regulators

Burnout Has Quality of Care Implications

- 47 studies on 42 473 physicians were included in the meta-analysis.
- **Physician burnout was associated with an increased risk of patient safety incidents (OR, 1.96; 95% CI, 1.59-2.40), poorer quality of care due to low professionalism (OR, 2.31; 95% CI, 1.87-2.85), and reduced patient satisfaction (OR, 2.28; 95% CI, 1.42-3.68).**
- **Conclusion and Relevance: This meta-analysis provides evidence that physician burnout may jeopardize patient care;**
- **Reversal of this risk has to be viewed as a fundamental health care policy goal across the globe.**
- **Health care organizations are encouraged to invest in efforts to improve physician wellness, particularly for early-career physicians.**

Panagioti, Geraghty, Johnson et al., 2018

Burnout Has Physician Work Force Implications

- There are at least two **prospective studies on physician burnout and workforce issues.**
- In a study of **252 primary care physicians at multiple sites in San Francisco, high scores in cynicism and/or emotional exhaustion predicted turnover across a 3 year period** (Willard-Grace, Knox, Huang et al., 2019)
- In a six year study of **Mayo Clinic physicians (approximately 2,500), higher scores on emotional exhaustion were associated with reduction from full to part time hours** (Shanafelt, Mungo, Schmitgen et al., 2016).
- In the previously referenced Medscape study on physician burnout among six countries, 9% to 25% of the physicians reporting burnout rated it as severe enough to consider quitting medicine (<https://www.medscape.com/slideshow/2019-global-burnout-comparison-6011180#5>).

Individual Physician-Based Burnout Interventions Work

- Twelve studies involving 1,034 participants were included in three meta-analyses.
- **Cognitive, behavioral, and mindfulness interventions were associated with decreased symptoms of anxiety in physicians** (standard differences in means [SDM], -1.07; 95% confidence interval [CI], -1.39 to -0.74) **and medical students** (SDM, -0.55; 95% CI, -0.74 to -0.36).
- **Interventions incorporating psychoeducation, interpersonal communication, and mindfulness meditation were associated with decreased burnout in physicians** (SDM, -0.38; 95% CI, -0.49 to -0.26).
- Results from this review and meta-analysis provide support that cognitive, behavioral, and mindfulness-based approaches are effective in reducing stress in medical students and practicing physicians.
- **There is emerging evidence that these models may also contribute to lower levels of burnout in physicians.**

Regehr, Glancy, Pitts, LeBlanc, 2014

Both Individual and Organizational Burnout Interventions Work

- RESULTS: 19 studies (n = 1,550 physicians).
- **Interventions were associated with small, yet significant reductions in burnout equal to a drop of 3 points on the emotional exhaustion domain of the Maslach Burnout Inventory above change in the controls).**
- Subgroup analyses suggested significantly improved effects for organization-directed interventions compared with physician-directed interventions.
- **CONCLUSION: Evidence from this meta-analysis suggests that recent intervention programs for burnout in physicians were associated with small benefits that may be boosted by adoption of organization-directed approaches.**

Panagioti, Panagopoulou, Bower et al., 2017

Both Individual and Organizational Burnout Interventions Work (2)

- **FINDINGS:** 15 Randomized Controlled Trials including 716 physicians and 37 cohort studies including 2,914 physicians.
- Overall burnout decreased from 54% to 44% (difference 10% [95% CI 5-14]; $p < 0.0001$; $I^2 = 15\%$; 14 studies).
- **INTERPRETATION:** The literature indicates that both individual-focused and structural or organizational strategies can result in clinically meaningful reductions in burnout among physicians.
- Further research is needed to establish which interventions are most effective in specific populations, as well as **how individual and organizational solutions might be combined to deliver even greater improvements in physician well-being than those achieved with individual solutions** (West, Dyrbye, Erwin, Shanafelt, 2016).
- **Both individual and organizational strategies have been only partially successful in mitigating burnout and in developing resiliency and well-being among physicians** (Rothenberger DA, 2017).

The Mayo Clinic's Nine Organizational Strategies to Reduce Burnout

- Acknowledge and assess the problem
 - Harness the power of leadership
 - Develop and implement targeted work unit interventions
 - Cultivate community at work
 - Use rewards and incentives wisely
 - Align values and strengthen culture
 - Promote flexibility and work-life integration
 - **Provide resources to promote resilience and self-care**
 - Facilitate and fund organizational science (Shanafelt & Noseworthy, 2016).
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- **This presentation will primarily focus on one strategy, promoting resilience and self-care.**

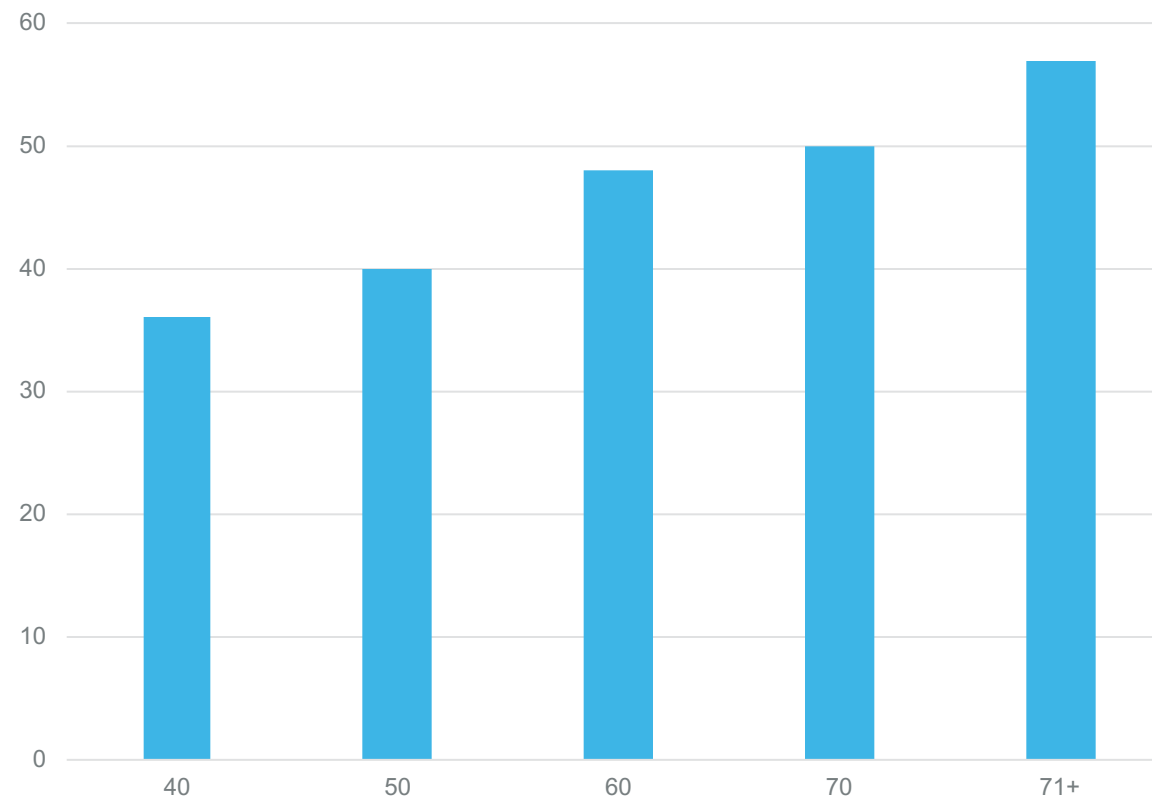
Six Individual Options to Reduce Work Stress/Burnout

- Modify or Seek or Advocate for Better Work Conditions
- Increase Stress Resistance: Aerobic exercise
- First Aid (what to do immediately after a stressful event): Diaphragmatic or Belly Breathing
- Manage Your Thinking: Mindfulness or Meditation
- Edit Your Thoughts: Cognitive Behavioral Stress Reduction
- Modify Negativity Bias

One of the Most Direct Strategies to Modify Work Conditions and Reduce Burnout is to Reduce Work Hours

The slope of the relationship between hours worked per week through the range of 40 to 71 plus hours per week and percentage of physicians reporting burnout is an **additional 5% burnout for each increase of 10 hours worked per week.**

Hours Worked Versus Percent Reporting Burnout: 2019 US Medscape Survey



<https://www.medscape.com/slideshow/2019-lifestyle-burnout-depression-6011056#6>

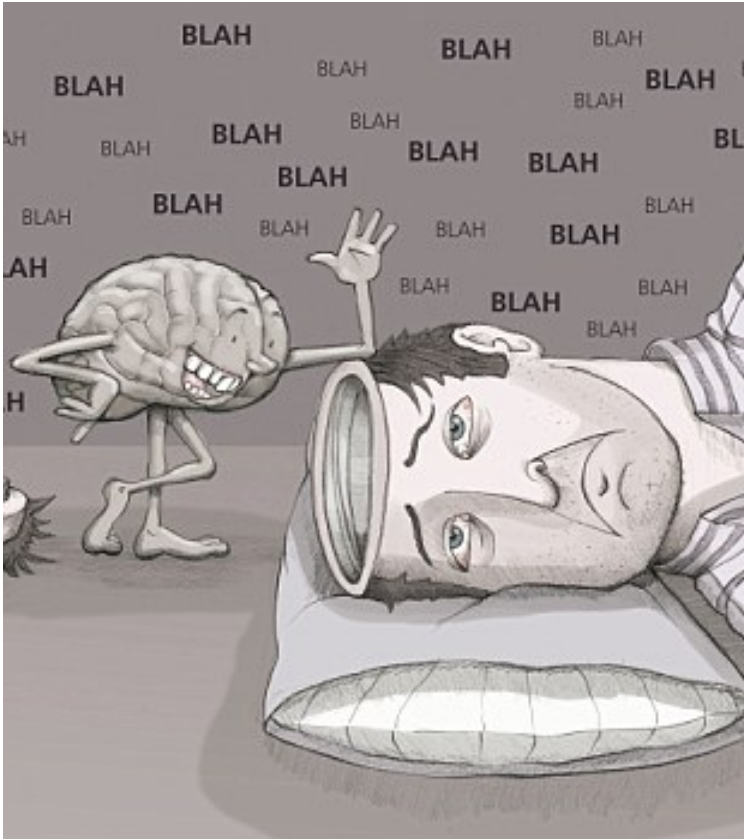
Your General Resistance to Stress is Determined by Your Aerobic Fitness Level

- **A meta-analysis of 34 studies with 1,449 participants found that aerobically fit people had a reduced physiological response to stress** (Crews & Landers, 1987)
- Long term effects of aerobic exercise on the autonomic nervous system increases the tone or strength of the parasympathetic system, i.e. endurance athletes have low resting pulse rates.
- **Exercise has beneficial effects on anxiety and depression** (Chu, Koh, Moy, Müller-Riemenschneider, 2008).
- **Exercise is also associated with increased well being** (Kuoppala, Lamminpää, Husman, 2008).
- You can not control most of the stressors you encounter at work, but you can increase your body's resistance to those stressors by regular aerobic exercise and it's good for your heart and brain, too!

Diaphragmatic or Belly Breathing: What to Do Immediately After a Stressful Event and Continued Practice Provides Other Benefits

- Breathing that is affected by stress tends to be rapid and shallow chest breathing.
- **Deep, slow, diaphragmatic breathing is a signal to your autonomic nervous system to turn off the sympathetic system and the stress response.**
- **Over time, it increases mood stability, anger control, and anxiety management** (Federal Practitioner, 2014).
- There are multiple studies on effectiveness for different populations, such as, work stress, obesity, treatment resistant seizures, surgical residents, anxiety, dental anxiety, GERD, hypertension and one meta-analysis that combines populations (Williams, Lewis Olds, 2007).
- One of the easiest ways to learn this type of breathing is a free mobile app developed by the Veterans' Administration's National Center for Telehealth and Technology for veterans with TBI and PTSD.

Most of Us Overthink



- Over a 24-hour period we can process up to 70,000 thoughts, even as we sleep.
- Each day contains 86,400 seconds, so that equates to a **different thought every 1.2 seconds, your brain never stops!**
- Continual thoughts can both be a symptom of stress and a cause of stress.
- Because of a well researched phenomena called negativity bias, most of these thoughts are negative (Johnstone, 2012).

Mindfulness Based Stress Reduction (MBSR): An Antidote for Overthinking

- MBSR was developed by Jon Kabat-Zin, Ph.D., a molecular biologist and an Insight Meditation Society teacher, who founded the Stress Reduction Clinic and the Center for Mindfulness in Medicine, Health Care and Society at the University of Massachusetts Medical School.
- During 1979, he developed MBSR. There are multiple effectiveness studies world wide among healthy and physically ill populations.

What is Mindfulness?

- Paying attention, In the present moment, On purpose, Non-judgmentally, As if your life depended on it (Jon Kabat-Zin)
- **The capacity for lowering one's own reactivity (paying attention to experiences without reacting to them)**
- **The ability to notice and observe sensations, thoughts and feelings even though they may be unpleasant** (*Mindful Practice curriculum*, U Rochester School of Medicine)

Mindfulness Based Stress Reduction (MBSR): An Antidote for Overthinking (2)

- **MBSR has a strong meta-analytic evidence base for its effectiveness with normal adults** (Goyal, Singh, Sibinga et al., 2014).
- **Multiple studies show improvement in physician burnout using mindfulness techniques** (Fortney, Luchterband, Zakletskaia et al., 2014) including two Randomized Controlled Trials (West, Dyrbye, Rabatin et al., 2014; Schroeder, Stephens, Colgan et al., 2016).
- MBSR is usually taught in a eight week, ten session format with 31 hours of instruction.
- There are shortened versions of mindfulness training for physicians.

Meditation: Another Antidote for Overthinking

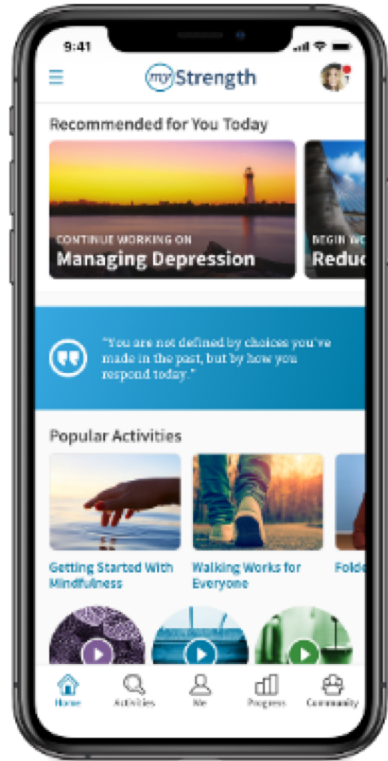
- Meditation is an approach to training the mind, similar to physical fitness as an approach to training the body.
- Many meditation techniques exist, requiring different mental skills.
- **There is strong meta-analytic evidence that many meditation techniques reduce the physical effects of stress** (Pascoe, Thompson, Jenkins, Ski, 2017).
- **There are minimal studies on the effect of meditation on physician burnout.**

Mobile and Web Applications

- Objectives: Web based and mobile applications have been shown to mitigate stress, burnout, depression, and suicidal ideation among several populations and may circumvent access barriers for healthcare providers.
- Reviewed published data on resources and selected a small sample that readily can be used by healthcare providers.
- Methods: Identified 36 resources to further evaluate based on relevance, applicability to healthcare providers (confidentiality, convenience, and cost), and the strength of findings supporting their effectiveness.
- Results: Breathing (Breath2Relax), meditation (Headspace, guided meditation audios), Web based Cognitive Behavioral Therapy.

Pospos, Young, Downs, Iglewicz, Depp, Chen, Newton, Lee, Light & Zisook, 2017

myStrength



myStrength combines the broadest range of evidence-based models with the most contemporary user design to offer a unique consumer experience.

Highly interactive, individually–tailored applications empower users to address depression, anxiety, stress, substance use, chronic pain and sleep challenges, while also supporting the physical and spiritual aspects of whole person health.

<https://mystrength.com/mobile>

Dysfunctional Attitudes

- Dysfunctional Attitudes are **specific learned habitual thinking patterns that make the person more likely to experience stress, anxiety and depression** (Beck, 2008).
- Dysfunctional Attitudes can **intensify and prolong our stress response or trigger the stress response in situations most people would perceive as harmless**.
- **Dysfunctional attitudes are directly and quantitatively related to the amount of distress one feels in daily life** (Vîslă, Flückiger, Grosse Holtforth, David, 2016).
- **Dysfunctional Attitudes** are associated with increased burnout symptoms among physicians (Bianchi & Schonfeld, 2016).

Negativity Bias

- **Human beings are physiologically wired to focus on dangers and negative events and to reduce positive responses over short periods of time.**
- There are multiple stress reduction techniques that focus on fostering gratitude and positive feelings (Hanson, 2013; Nisker, 2016; Wright, 2017).
- **One technique called Three Good Things is very time efficient and has been found effective in a pilot study of healthcare personnel (Sexton JB & Adair KC, 2019).**

Shortest Guide To Three Good Things

- Basically, it is a gratitude exercise that you inculcate as a habit.
- Every night, just before you go to bed, sit down for a while and look back at your day.
- Then think of 3 things that went *well* for you during the day.
- Write them down. Reflect and brood upon each of them.
(<https://happyproject.in/three-good-things/>)

Three Good Things App



Write 3 good things everyday and this app will remind them a day later. This way, we'll keep a smile on your face and remind you all the good things happening, even the little ones.

ADD MY GOOD THING

SEE ALL MY GOOD THINGS

<https://itunes.apple.com/us/app/three-good-things-a-happiness-journal/id1242079576?mt=8>

Ideas Whose Time Has Come

- Recent articles on burnout among physicians and medical students and residents emphasize;
- For students the ability to **easily access confidential mental health services** without stigmatization (Mieses, 2019)
- For physicians in practice, the development of “**safe haven**” **programs** (the legal ability to answer no to medical board licensing questions while in treatment) and
- **Improved licensing questions** such as North Carolina’s applicant responsibility statement on caring for their own physical and mental health instead of intrusive questions on previous treatment (Buck, Grace, Runyan, Brown-Berchtold, 2019)

Mahalo