# Mindfulness in Medicine

Tony Dunin
Orthopaedic Surgeon
MBSR teacher
St. Vincent's and Knox Private Hospitals
www.mcfm.au

# Declaration of interests

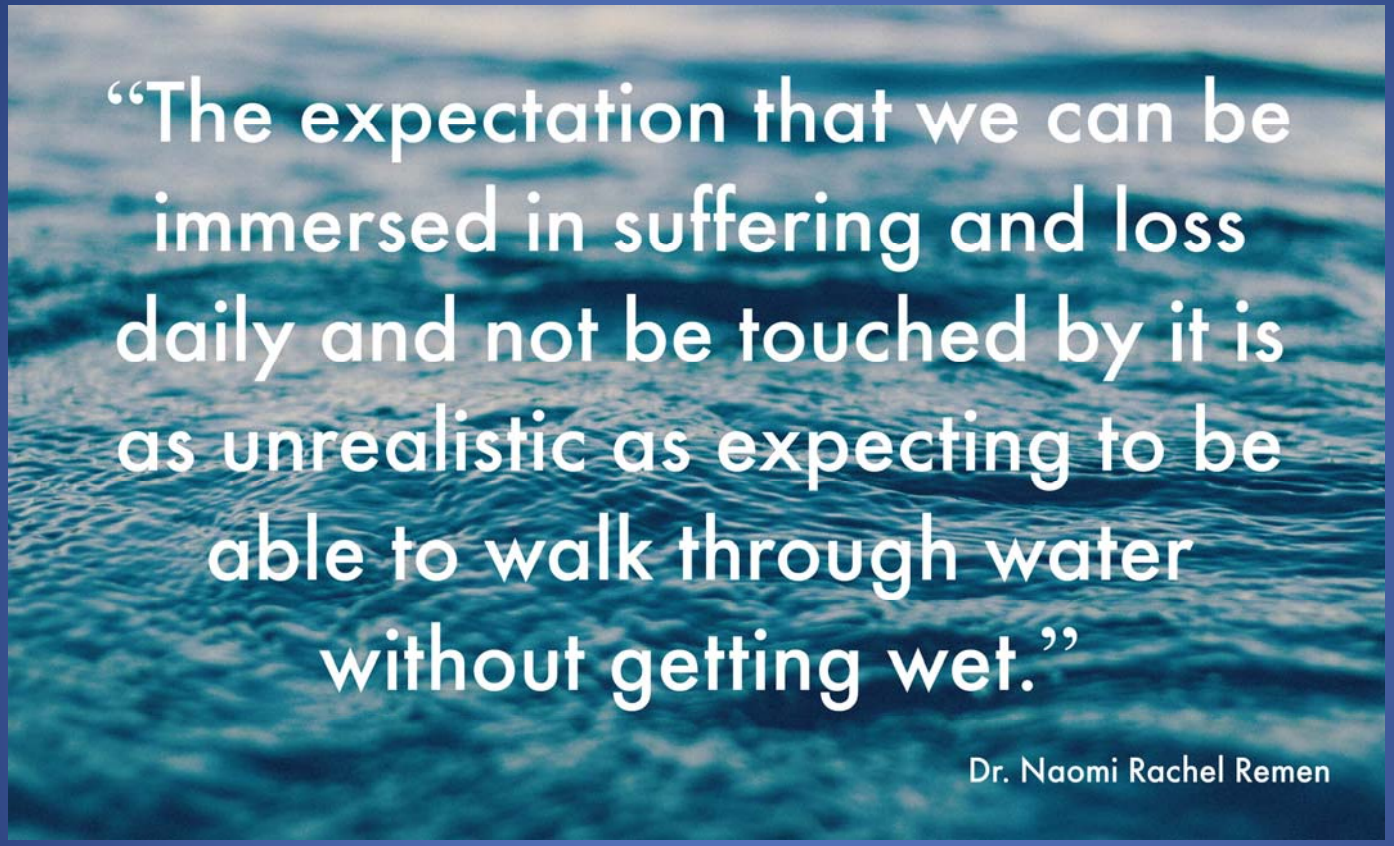
- Paid consultant for Medacta International
- Co-owner of Melbourne Centre for Mindfulness

## Physicians

High stress and high ideals

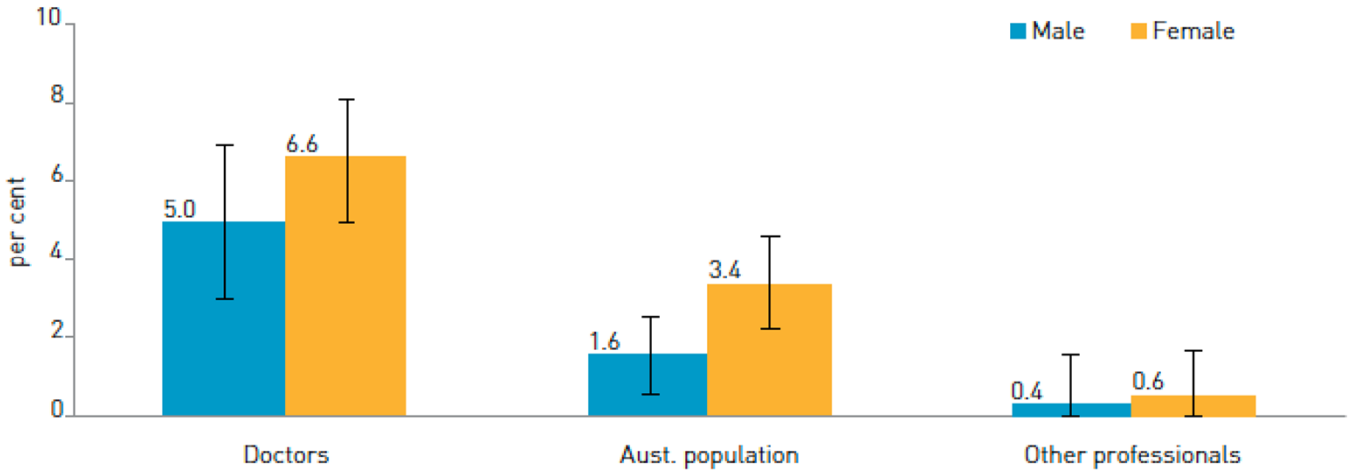
High responsibility

Patients have high expectations


“The expectation that we can be immersed in suffering and loss daily and not be touched by it is as unrealistic as expecting to be able to walk through water without getting wet.”
Dr. Naomi Rachel Remen

# High emotional distress in Doctors

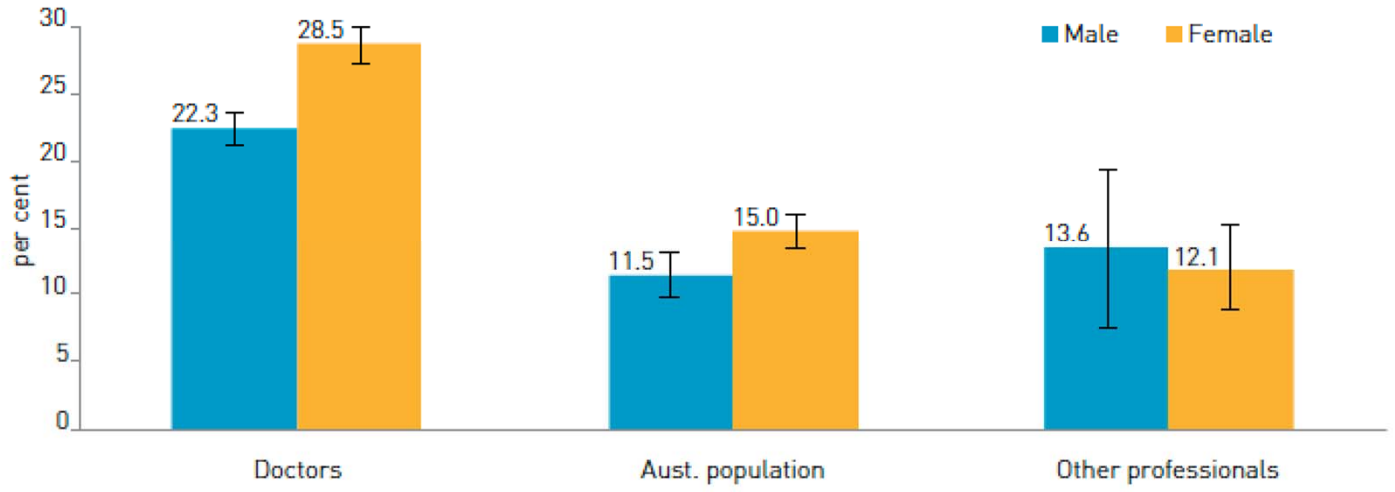
**Figure 1:** Levels of very high psychological distress by gender in doctors, the Australian population and other Australian professionals aged 30 years and below




Approximately 21% of doctors reported having ever been diagnosed with, or treated for, depression and 6% had a current diagnosis. Current levels of depression were similar in doctors in comparison to the general population, but higher than other Australian professionals (6.2% vs. 6.2% vs. 5.3%). (Figure 2). Approximately 9% of doctors reported having ever been diagnosed with or treated for an anxiety disorder (Australian population 5.9%), and 3.7% reported having a current diagnosis (Australian population 2.7%).

# Suicidal Ideation

**Figure 3:** Suicidal ideation by gender in doctors, the Australian population and other professionals prior to the previous 12 months

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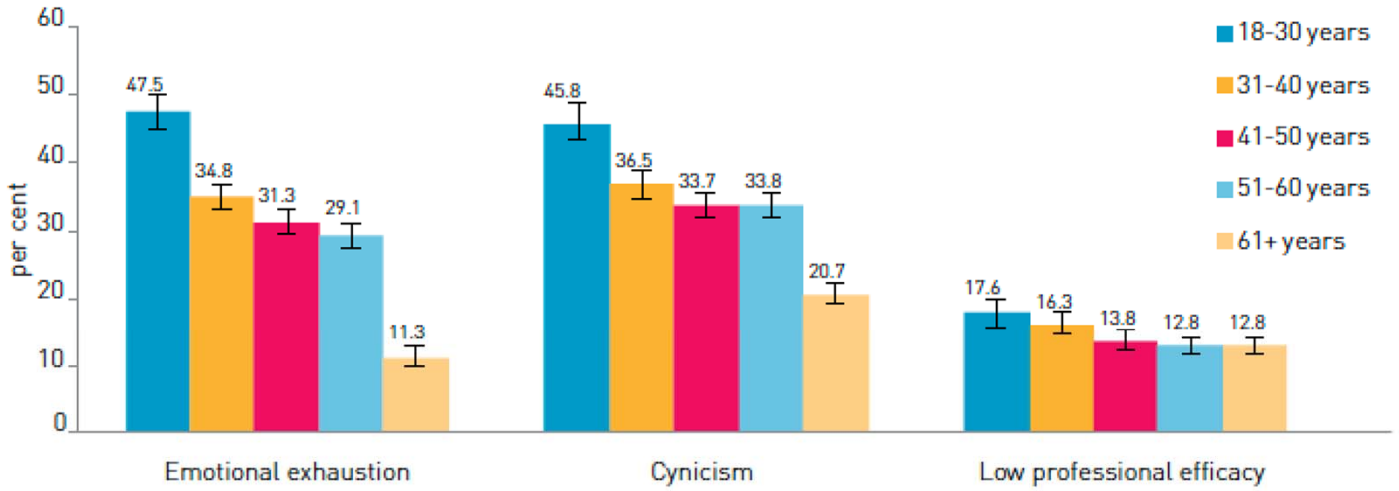
# Burnout highest in our Trainees

**Figure 4:** Burnout in the domains of emotional exhaustion, cynicism and professional efficacy, by age group




The most common source of work stress reported by doctors related to the need to balance work and personal responsibilities (26.8%). Other sources of work related stress include too much to do at work (25.0%), responsibility at work (20.8%), long work hours (19.5%) and fear of making mistakes (18.7%). There were some differences in work stressors within subgroups of the population. For example, overseas trained and Indigenous doctors were more likely to report being very stressed by racism and bullying. Females were more likely than male doctors to report being very stressed by life and work stressors.

# What is burnout?

- Emotional and physical exhaustion
- Depersonalisation
- Sense of low personal achievement

# Burnout

"Erosion of the soul" (Maslach)

"Deterioration of values, dignity, spirit and will" (Spickard)

"Silent anguish of healers" (Neuwirth)

"Culture of endurance" (Shanafelt)

"Failure of adaptive reserve" (Beckman)

# Warning signs of Chronic Stress

## Cognitive Symptoms

- Memory problems
- Inability to concentrate
- Poor judgment
- Seeing only the negative
- Anxious or racing thoughts
- Constant worrying

## Emotional Symptoms

- Depression or general unhappiness
- Anxiety and agitation
- Moodiness, irritability, or anger
- Feeling overwhelmed
- Loneliness and isolation
- Other mental or emotional health problems

## Physical Symptoms

- Aches and pains
- Diarrhea or constipation
- Nausea, dizziness
- Chest pain, rapid heartbeat
- Loss of sex drive
- Frequent colds or flu

## Behavioral Symptoms

- Eating more or less
- Sleeping too much or too little
- Withdrawing from others
- Procrastinating or neglecting responsibilities
- Using alcohol, cigarettes, or drugs to relax
- Nervous habits (e.g. nail biting, pacing)

REVIEW ARTICLE

ANZJSurg.com

# Burnout in orthopaedic surgeons: a review

Manit Arora,*† Ashish D. Diwan,*†‡ and Ian A. Harris*†§¶

*University of New South Wales, Sydney, New South Wales, Australia
†Department of Orthopaedics, St George Hospital, Sydney, New South Wales, Australia
‡Orthopaedic Research Institute, Sydney, New South Wales, Australia
§South Western Sydney Clinical School, University of New South Wales, Liverpool Hospital, Sydney, New South Wales, Australia and
¶Whitlam Orthopaedic Research Centre, Sydney, New South Wales, Australia

**Key words**
burnout, Maslach Burnout Inventory, orthopaedic surgeon, surgery.

**Correspondence**
Dr Manit Arora, St George Clinical School, University of New South Wales, Kogarah, NSW 2217, Australia.
E-mail: z3188840@unsw.edu.au

**M. Arora** BSc (Med) (Hons), MBBS (Hons); **A. D. Diwan** FRACS, PhD; **I. A. Harris** FRACS, PhD.

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## Abstract

**Background:** Training and practice of orthopaedic surgery are stressful endeavours, placing orthopaedic surgeons at risk of burnout. Burnout syndrome is associated with negative outcomes for patients, institutions and, especially, the surgeon. The aim of this review is to summarize available literature on burnout among orthopaedic surgeons and provide recommendations for future work in this field.

**Methods:** A search of MEDLINE (1946–present) and EMBASE (search terms: 'Burnout, Professional' AND 'Orthopaedics'; 'Stress, Psychological' AND 'Orthopaedic Surgery'; 'Fatigue, Mental' AND 'Orthopaedic Surgery') was performed. The authors focused on articles that assessed burnout among orthopaedic surgeons. All studies used the Maslach Burnout Inventory allowing for cross-study (and cross-country) comparisons.

**Results:** Burnout rates among orthopaedic surgeons are in the range of 50–60%, higher than surgeons in general (range: 30–40% for surgeons in general), with the highest rate (emotional exhaustion and depersonalization scores) among orthopaedic residents, followed by department chairs, followed by faculty members. Both objective factors (caseload, practice setting, etc.) and subjective factors (perception that career was unrewarding, perception of lack of autonomy, etc.) contribute to burnout; however, subjective factors show a stronger correlation.

**Conclusion:** Despite the heavy burnout rates among orthopaedic surgeons, little work has been performed in this field. Factors responsible for burnout among various orthopaedic populations should be determined, and appropriate interventions designed to reduce burnout.

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# Mindfulness for surgeons

## Why surgeons need mindfulness

In addition to having the knowledge and technical skills to practice surgery, an ideal surgeon is attentive and focused, relaxed, deals with contingencies calmly, flexible and resilient, unburdened by previous cases or external situations, and is warm and compassionate to patients, families and colleagues.

In reality, surgeons, like most humans, are typically not really present. Our minds are commonly described as 'monkey minds', restless, confused and easily distracted, with attention easily hijacked by stimuli, little different from a monkey that jumps from branch to branch side-tracked by fruits or anything of fleeting interest. Humans tend to daydream and ruminate about negative events, past failures and future worries.[1,2] The mind reacts to such events resulting in anger, irritation, frustration, excitement, sadness or

spirits or the afterlife, and does not require sitting in a lotus position chanting. Though traditional mindfulness meditation is practised while seated, one can learn and practise mindfulness in many ways from sitting on a chair or walking from the car park to the hospital to possibly even while performing a procedure. Mindfulness does not involve stopping thinking, which is almost impossible to do while awake and conscious. Mindfulness will not eliminate stress and disappointments. However, mindfulness will allow a person to accept stress and frustration as part of life.

Being attentive to the present moment involves knowing and accepting the emotional state we are in, whether we are relaxed, tense, frustrated, happy, neutral, grateful or angry. In this mindful state, we are also aware of current bodily sensations (e.g. the breath, the feel of the gloves hugging the hands) as well as of environmental

# Effects of Burnout

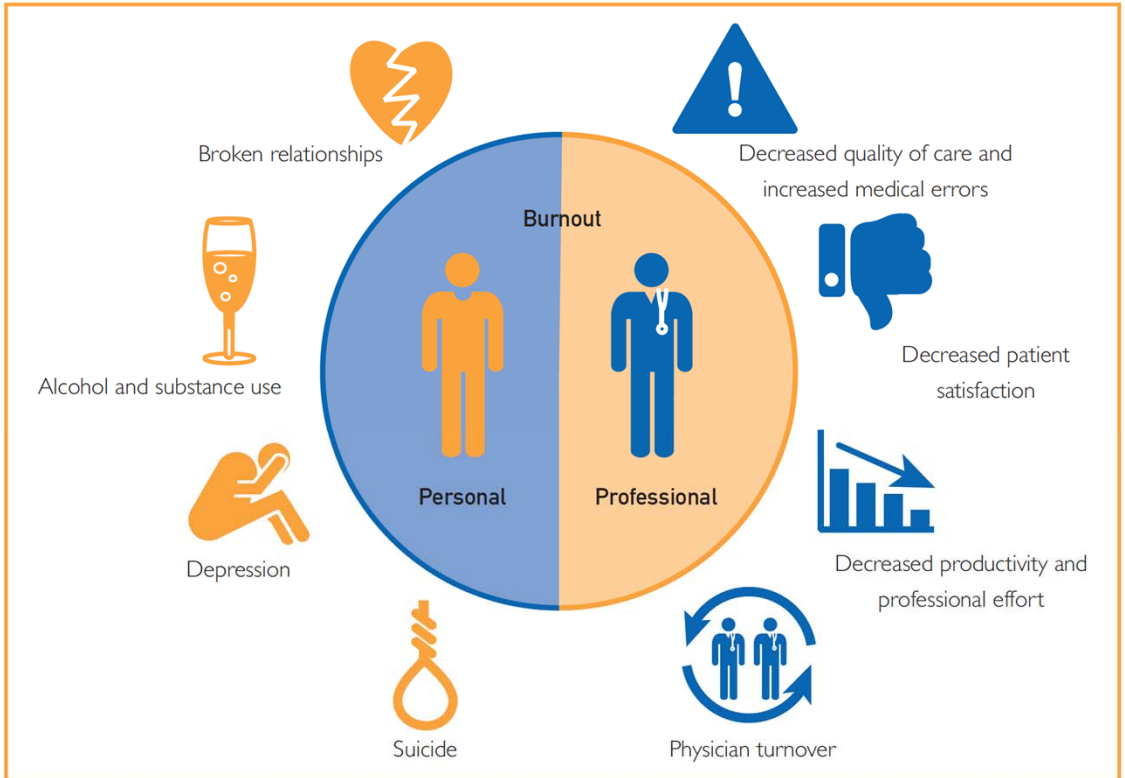



**FIGURE 1.** Personal and professional repercussions of physician burnout.

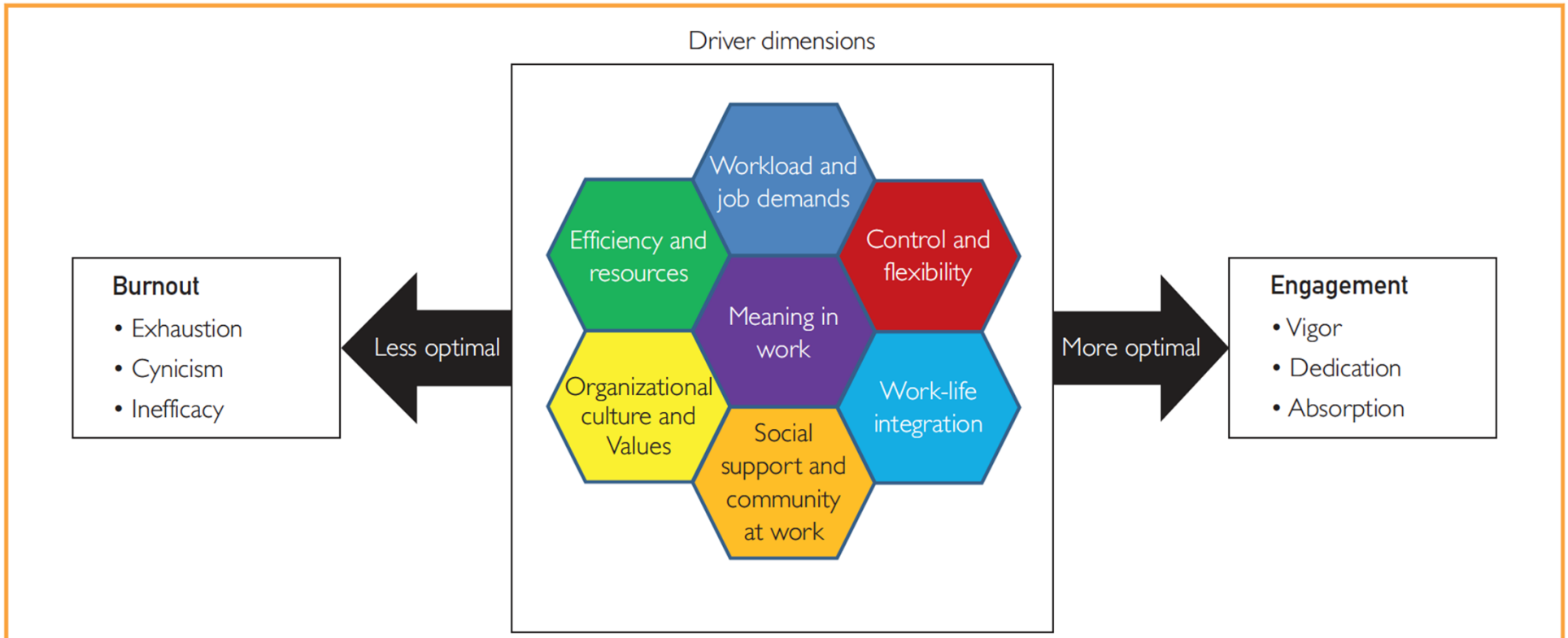
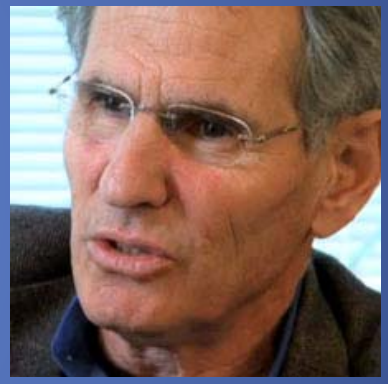



**FIGURE 2.** Key drivers of burnout and engagement in physicians.

Why is an orthopaedic surgeon doing teaching Mindfulness Meditation?

# History of
# Mindfulness Based Stress Reduction

1979 MBSR -Introduced by
Jon Kabat-Zinn



Patients at University of
Massachusetts Medical Centre who
had failed conventional treatment

8 week course using principles of 2500 years of
Theravada Buddhism

# MINDFULNESS AT ST.VINCENT'S HOSPITAL MELBOURNE

Complementary Therapies in Medicine (2013) xxx, xxx–xxx

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevierhealth.com/journals/ctim


## Systematic review of the efficacy of pre-surgical mind-body based therapies on post-operative outcome measures

Elizabeth. A. Nelson[a], Michelle. M. Dowsey[a], Simon. R. Knowles[b,c], David. J. Castle[c], Michael. R. Salzberg[c], Kaveh. Monshat[c], Anthony. J. Dunin[a], Peter. F.M. Choong[a,*]

[a] *The University of Melbourne, Department of Surgery, St Vincent's Hospital, Melbourne, VIC, Australia*
[b] *Faculty of Life and Social Sciences, Swinburne University of Technology, Melbourne, VIC, Australia*
[c] *St Vincent's Mental Health and The University of Melbourne Department of Psychiatry, Melbourne, VIC, Australia*

# RCT on mindfulness prior to joint replacement

**The effect of mindfulness training prior to total joint arthroplasty on post-operative pain and physical function: a randomised controlled trial**


Assoc. Professor Michelle Dowsey[1, 2]

Professor David Castle[3]

Dr Simon Knowles[4]

Dr Kaveh Monshat[3]

Assoc. Professor Michael Salzberg[3]

Dr Elizabeth Nelson[3]

Mr Anthony Dunin[2]

Ms Jo Dunin[2]

Dr Tim Spelman[1]

Professor Peter Choong[1, 2]

# Our (Tony & Jo) credentials

- MBSR course 2008
- Workshop with Jon Kabat-Zinn 2009
- Regular mindfulness practice
- Yearly silent retreats
- Teacher training intensive 2012& 2013
- Ongoing professional development 2014, 2015, 2016
- MBSR Teaching at St. Vincent's Hospital
- 2016 and 2017 Mindful Practice workshop and teacher training, Rochester,New York

# Mindfulness is

- being aware of what is happening right now without wishing it to be different.
- Enjoying the pleasant without holding on when it changes (which it will)
- Being with the unpleasant without fearing it will always be this way (which it won't)

James Baraz

# What happens when we meditate

- Move into being mode
- Observing our inner awareness
- Realize how little control we have over our thoughts
- Move away from outcomes
- Simple but challenging process
- It is a form of mind training
- Develop insight and liberation

# Compassion fatigue?

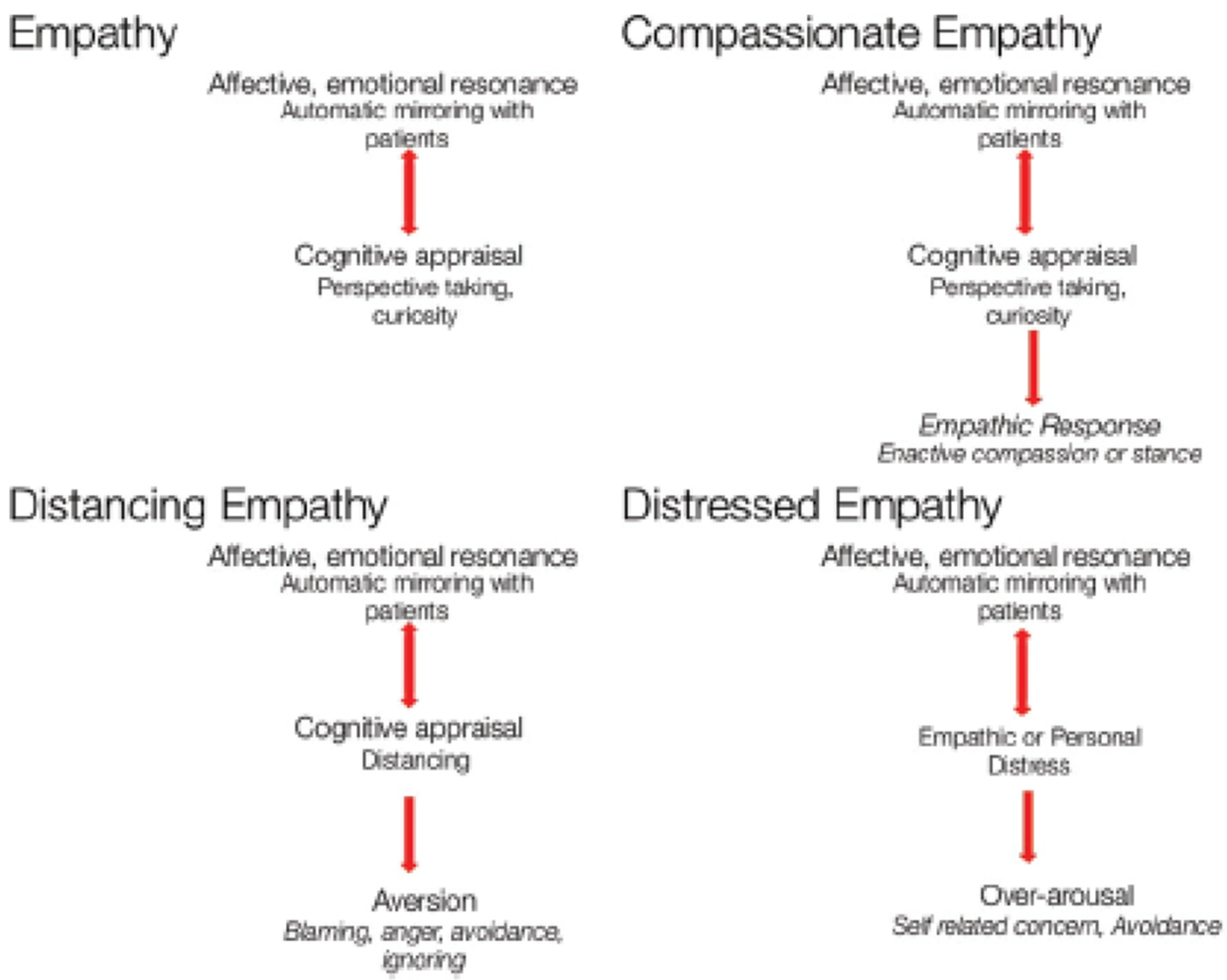
# No - it’s about empathy

We know this from recent research in

- Social psychology
- Neuroscience
- Contemplative science

# What is empathy?

- A subjective felt experience of another's suffering – emotional resonance
- the cognitive ability to take perspective: to put oneself in the shoes of the one who is suffering




re 1. Empathy Appraisal: Compassion, Distance and Distress.

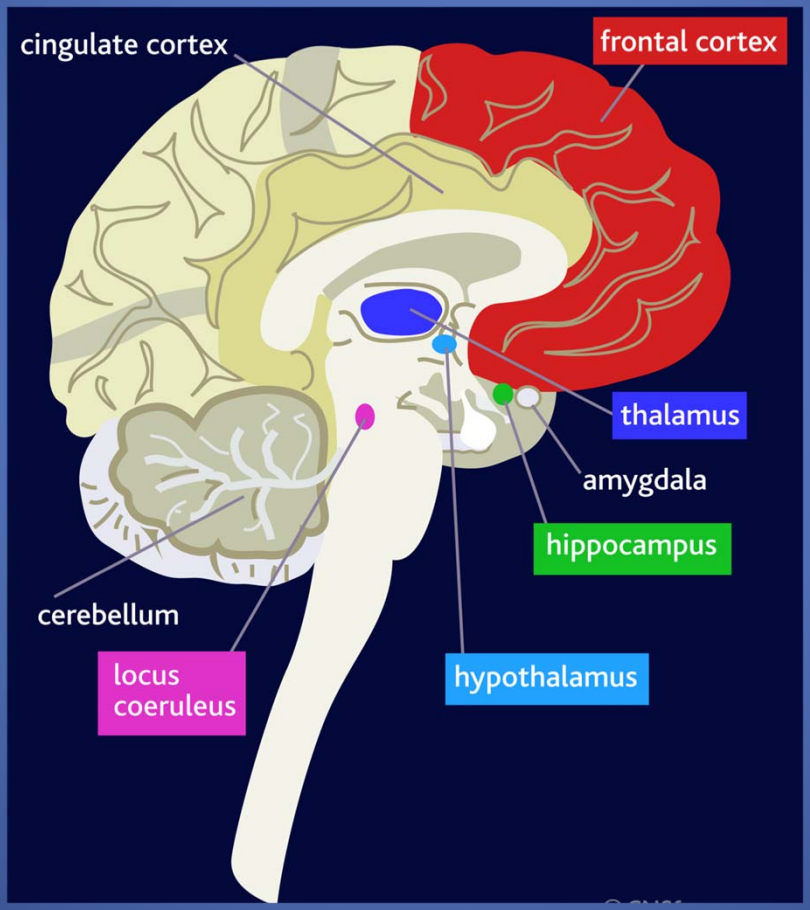
When we feel too distressed, we attempt to

avoid emotional resonance.

Given this resonance is almost automatic, it requires huge effort

... and this leads to exhaustion.

# What happens in our brain with stress



# Stress blocks clear thinking

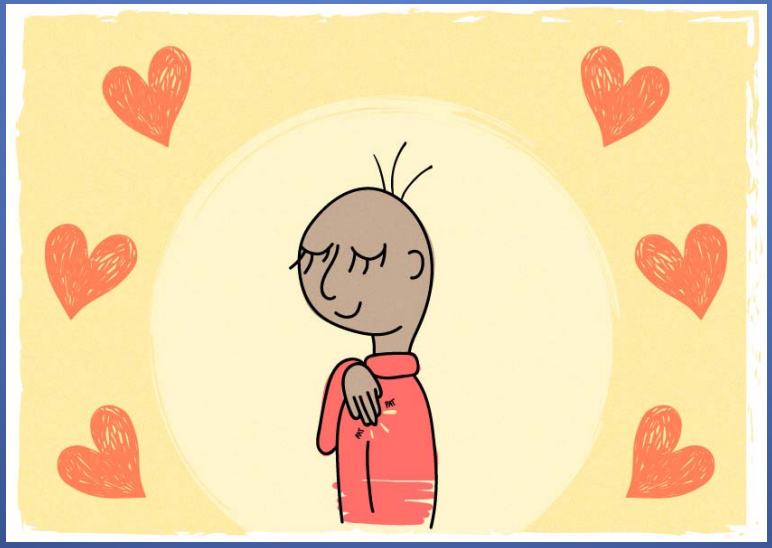
- The hyperactive amygdala (the emotional thermostat) blocks ‘slow’ or reflective thinking by inhibiting activity of the hippocampus.
- The hippocampus plays a role in the formation of new memory about experienced events.
- Long term traumatic stress leads to atrophy of hippocampus more than any other part of the brain.

## Studies into mindfulness have demonstrated the following benefits

- improved working memory
- sustained attention
- emotional self-regulation
- promotes social behaviour
- turns off pro inflammation genes
- potentially minimises  age-related cognitive decline

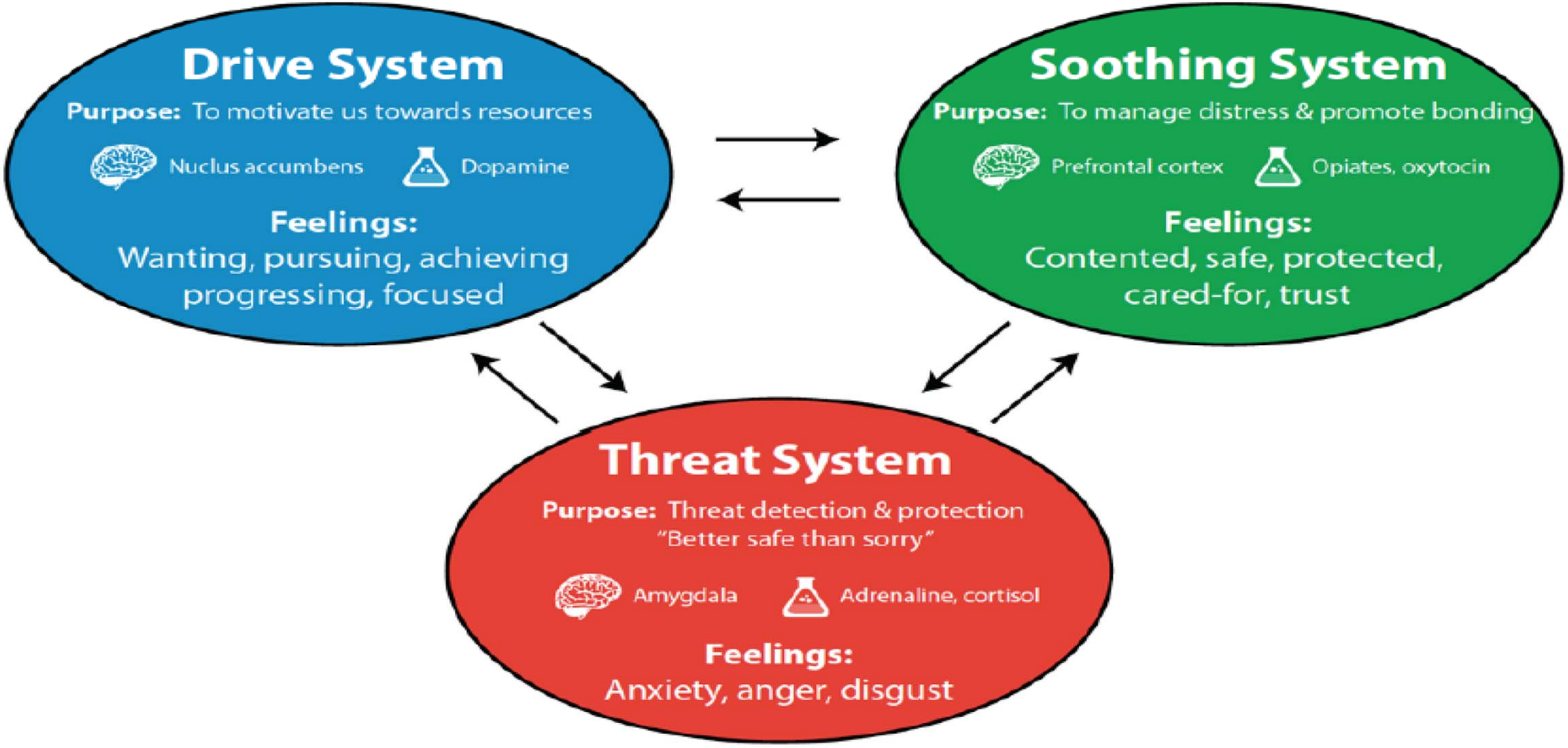
# Mindfulness and Self Compassion

- Antidote to burnout



**Emotional Regulation Systems**

Paul Gilbert's evolutionary model proposes that human beings switch between three systems to manage their emotions.
Each system is associated with different brain regions and different brain chemistry.
Distress is caused by imbalance between the systems, often associated with under-development of the soothing system.



# Does Mindfulness work in doctors?

## Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis

*Colin P West, Liselotte N Dyrbye, Patricia J Erwin, Tait D Shanafelt*

*Lancet* 2016; 388: 2272–81

Published Online
September 28, 2016
http://dx.doi.org/10.1016/
S0140-6736(16)31279-X

### Summary

**Background** Physician burnout has reached epidemic levels, as documented in national studies of both physicians in training and practising physicians. The consequences are negative effects on patient care, professionalism, physicians' own care and safety, and the viability of health-care systems. A more complete understanding than at present of the quality and outcomes of the literature on approaches to prevent and reduce burnout is necessary.

# Association of an Educational Program in Mindful Communication With Burnout, Empathy, and Attitudes Among Primary Care Physicians

Michael S. Krasner, MD
Ronald M. Epstein, MD
Howard Beckman, MD
Anthony L. Suchman, MD, MA
Benjamin Chapman, PhD
Christopher J. Mooney, MA
Timothy E. Quill, MD

**Context** Primary care physicians report high levels of distress, which is linked to burnout, attrition, and poorer quality of care. Programs to reduce burnout before it results in impairment are rare; data on these programs are scarce.

**Objective** To determine whether an intensive educational program in mindfulness, communication, and self-awareness is associated with improvement in primary care physicians' well-being, psychological distress, burnout, and capacity for relating to patients.

**Design, Setting, and Participants** Before-and-after study of 70 primary care physicians in Rochester, New York, in a continuing medical education (CME) course in 2007-2008. The course included mindfulness meditation, self-awareness exercises, narratives about meaningful clinical experiences, appreciative interviews, didactic material, and discussion. An 8-week intensive phase (2.5 h/wk, 7-hour retreat) was followed by a 10-month maintenance phase (2.5 h/mo).

**Main Outcome Measures** Mindfulness (2 subscales), burnout (3 subscales), empathy (3 subscales), psychosocial orientation, personality (5 factors), and mood (6 subscales) measured at baseline and at 2, 12, and 15 months.

**Results** Over the course of the program and follow-up, participants demonstrated

PRIMARY CARE PHYSICIANS report alarming levels of professional and personal distress. Up to 60% of practicing physicians report symptoms of *burnout*,[1-4] defined as emotional exhaustion, depersonalization (treating patients as

# Mindfulness in Medicine

- Being fully present to the patient
- Foster healing as well as curing
- Compassion
- Greater resilience
- Empathetic understanding
- Improved patient outcomes
- Improved  cognition

# WHY ARE DOCTOR'S RESISTANT TO MINDFULNESS?

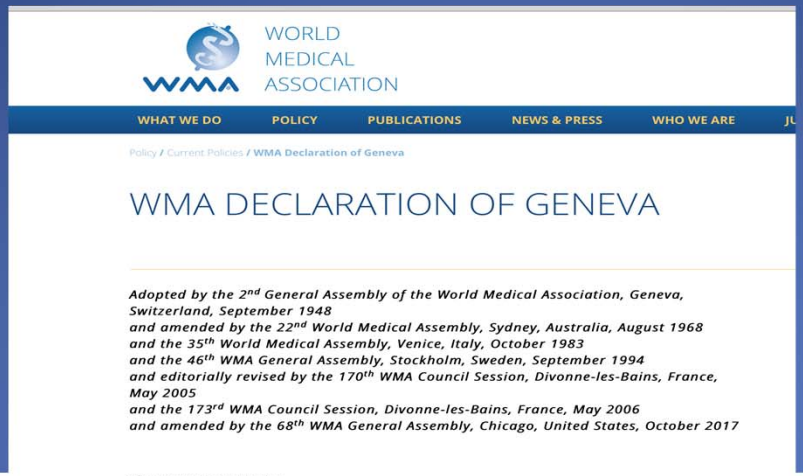
# Conclusion

- We owe it to our patients to promote physician well being
- Our institutions need to add doctor well being as a quality metric
- Mindfulness provides a win/win solution
  - Physician resilience and flourishing
  - Improved patient outcomes

# MINDFULNESS IN MEDICINE

- 1 or 2 day workshops on the application of mindfulness in medical practice - in all states.
- 8 week program based on MBSR –currently in Melbourne only

www.mcfm.com.au


WORLD
MEDICAL
ASSOCIATION
WHAT WE DO
POLICY
PUBLICATIONS
NEWS & PRESS
WHO WE ARE
Policy / Current Policies / WMA Declaration of Geneva
WMA DECLARATION OF GENEVA
Adopted by the 2nd General Assembly of the World Medical Association, Geneva, Switzerland, September 1948
and amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968
and the 35th World Medical Assembly, Venice, Italy, October 1983
and the 46th WMA General Assembly, Stockholm, Sweden, September 1994
and editorially revised by the 170th WMA Council Session, Divonne-les-Bains, France, May 2005
and the 173rd WMA Council Session, Divonne-les-Bains, France, May 2006
and amended by the 68th WMA General Assembly, Chicago, United States, October 2017
The Physician's Pledge
AS A MEMBER OF THE MEDICAL PROFESSION:
I WILL GIVE to my teachers, colleagues, and students the respect and gratitude that
I WILL SHARE my medical knowledge for the benefit of the patient and the advancement of healthcare;
I WILL ATTEND TO my own health, well-being, and abilities in order to provide care of the highest standard;
I WILL NOT USE my medical knowledge to violate human rights and civil liberties, even under threat;
I MAKE THESE PROMISES solemnly, freely, and upon my honour.

VIEWPOINT

# Charter on Physician Well-being

**Larissa R. Thomas, MD, MPH**
Division of Hospital Medicine, Zuckerberg San Francisco General Hospital, and Department of Medicine, University of California, San Francisco School of Medicine, San Francisco.

**Jonathan A. Ripp, MD, MPH**
Departments of Medicine, Geriatrics and Palliative Medicine, and Medical Education, Icahn School of Medicine at Mount Sinai, New York, New York.

**Colin P. West, MD, PhD**
Division of General Internal Medicine, Department of Medicine, Mayo Clinic, Rochester, Minnesota; and Division of Biomedical Statistics and Informatics, Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota.

**Dedication to serving the interest** of the patient is at the heart of medicine's contract with society. When physicians are well, they are best able to meaningfully connect with and care for patients. However, challenges to physician well-being are widespread, with problems such as dissatisfaction, symptoms of burnout, relatively high rates of depression, and increased suicide risk affecting physicians from premedical training through their professional careers. These problems are associated with suboptimal patient care, lower patient satisfaction, decreased access to care, and increased health care costs.

Addressing physician well-being benefits patients, physicians, and the health care system. Governing bodies, policy makers, medical organizations, and individual physicians share a responsibility to proactively support meaningful engagement, vitality, and fulfillment in medicine. Furthering these ideals within the culture of medicine and across its diverse members may help to strengthen health care teams and improve health care system performance.

On behalf of the Collaborative for Healing and Renewal in Medicine (see acknowledgment), we set forth guiding principles and key commitments as a framework for key groups to address physician well-being from medical training through an entire career (**Box**).

Governing bodies and policy makers could use this charter to help advance a high-functioning health care system by ensuring that policies and regulations align with best practices that promote physician well-being, which may, in turn, provide better patient care and practice high-quality medicine.

### Physician Well-being Is Related With the Well-being of All Members of the Health Care Team

Physicians practice within a matrix of important relationships with patients, members of an interprofessional team, administrative leaders, and in some settings, learners and educators. The entire team is affected by the health of each of its members. Approaches to address physician well-being are most effective when contextualized within efforts to enhance the well-being of all health care team members.

### Physician Well-being Is a Quality Marker

Enhancing physician well-being likely benefits health systems seeking to provide high-value care.[2] For example, physician burnout has been estimated to contribute one-third of the cost of physician job turnover to the health care system.[2] The "Triple Aim" for health system improvement, optimizing the care experience and population health while reducing the cost of care, should be supplemented with physician well-being, the fourth component of a "Quadruple Aim" and an essential metric that should be tracked and included in organizational performance reports. Healthy organizations use systems improvement tools to identify factors associated with reduced well-being, including assessments of physician well-being in the planning stages of systems improvement initiatives.