HYPOTHESES:
Resilience is a capacity that can be grown
OPTIMUM WORK ZONE

After Apter M 1989
OPTIMUM WORK ZONE

- Relaxation
- Excitement
- Boredom
- Anxiety

Pleasant vs. Unpleasant
Low Emotional Arousal vs. High Emotional Arousal
Well-being is about engagement, not withdrawal
Mindfulness is a community activity
The ability of an individual to respond to stress in a healthy, adaptive way such that personal goals are achieved at minimal psychological and physical cost;

Resilient individuals not only “bounce back” rapidly after challenges but also grow stronger in the process.

Epstein & Krasner 2013

Howe A et al 2012
Why clinician distress matters

Quality of care
- Lower quality of technical care
- Riskier prescribing practices
- Medication errors
- Lower adherence

Patient-physician relationship
- Poor relationships
- Poor communication
- Lower patient satisfaction
- Erosion of altruism and empathy

Safety
- Unsafe behaviors
- Not following protocols

Professionalism
- Unprofessional conduct
- Poor relationships with staff
- Substance abuse

Costs
- Attrition and job turnover
- Recruitment costs

Clinician resilience (well-being – burnout)  

Quality of care (safety – errors)  

Quality of caring (compassion - detachment)  

A word about burnout

Three components:

- Emotional exhaustion
  - I just can’t do any more

- Depersonalization
  - Treating patients as objects

- Low personal accomplishment
  - No matter how hard I work, nothing improves

Maslach C 2001 and 2003
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)
## Proposing a continuum

<table>
<thead>
<tr>
<th><strong>Burnout</strong></th>
<th><strong>Resilience</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawn</td>
<td>Present</td>
</tr>
<tr>
<td>Emotionally exhausted</td>
<td>Energized</td>
</tr>
<tr>
<td>Defeated</td>
<td>Bouncing back</td>
</tr>
<tr>
<td>Going through the motions</td>
<td>Fully engaged</td>
</tr>
<tr>
<td>Brittle, rigid</td>
<td>Bending, not breaking</td>
</tr>
<tr>
<td>Cynical, hopeless</td>
<td>Capacity for positivity</td>
</tr>
<tr>
<td>Hypercritical</td>
<td>A light touch</td>
</tr>
<tr>
<td>Feeling ineffective</td>
<td>Becoming stronger</td>
</tr>
<tr>
<td>Treading water</td>
<td>Moving forward</td>
</tr>
<tr>
<td>AFGO</td>
<td>Welcoming change</td>
</tr>
</tbody>
</table>
Right now, where are you?

Burned out

Resilient
I feel emotionally drained from my work.
I feel used up at the end of the workday.
I feel fatigued when I get up in the morning and have to face another day on the job.
I can easily understand how my recipients feel about things.
I feel I treat some recipients as if they were impersonal objects.
Working with people all day is really a strain for me.
I deal very effectively with the problems of my recipients.
I feel burned out from my work.
I feel I'm positively influencing other people's lives through my work.
I've become more callous toward people since I took this job.
I worry that this job is hardening me emotionally.
<table>
<thead>
<tr>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel very energetic.</td>
</tr>
<tr>
<td>I feel frustrated by my job.</td>
</tr>
<tr>
<td>I feel I'm working too hard on my job.</td>
</tr>
<tr>
<td>I don't really care what happens to some recipients.</td>
</tr>
<tr>
<td>Working with people directly puts too much stress on me.</td>
</tr>
<tr>
<td>I can easily create a relaxed atmosphere with my recipients.</td>
</tr>
<tr>
<td>I feel exhilarated after working closely with my recipients.</td>
</tr>
<tr>
<td>I have accomplished many worthwhile things in this job.</td>
</tr>
<tr>
<td>I feel like I'm at the end of my rope.</td>
</tr>
<tr>
<td>In my work, I deal with emotional problems very calmly.</td>
</tr>
<tr>
<td>I feel recipients blame me for some of their problems.</td>
</tr>
</tbody>
</table>
Burnout appears early in training, with an uncertain prognosis

25% - 60% of practicing physicians

76% of internal medicine residents

45% - 53% of 3rd year students

Remission rate = ~ 50% at 12 months

Dyrbye LN et al. 2006 and 2010; Shana felt TD et al. 2003
What causes burnout?

Balance
Career fit
Overwork
Work / home

Psychological
Alienation
Moral distress
Affect regulation
Mental stability
Self-awareness
Self-monitoring

Work Environment
Unsupportive
Competitive
Productivity pressures
Too many demands
Not enough time
Too much change
Low control / high responsibility

Physical
Sleep
Pain
Illness

Psychological Alienation
Moral distress
Affect regulation
Mental stability
Self-awareness
Self-monitoring

- Fragmentation of the self
- Disconnection from calling
- Misdirected anger and frustration
- Inability to tolerate uncertainty, ambiguity and change
- Projection and defensiveness
... the extent to which an individual is able to focus their effort on the aspect of work that they find most meaningful

20%

CAREER FIT

Shanafelt Arch Int Med 2009
Becoming aware

- What are some of the late warning signs of stress and burnout?

- What are some of the early warning signs (start with the body)?

- What thoughts and feelings accompany these signs of stress?

- Discuss with a partner
Healthy and unhealthy *responses to stress*

**Unhealthy reactions**

Unhelpful behaviors that you feel “you can’t keep yourself” from doing

**“Survival skills”**

These may help you get through a tough time, but may be destructive if habitual (avoid being *proud* of these)

**Mindful responsiveness, resilience and growth**

Important to your long term development as a professional and as a person
## Values

<table>
<thead>
<tr>
<th>Positive values</th>
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<tbody>
<tr>
<td>Service, altruism</td>
</tr>
<tr>
<td>Excellence</td>
</tr>
<tr>
<td>Curative competence</td>
</tr>
<tr>
<td>Knowledge</td>
</tr>
<tr>
<td>Empathy</td>
</tr>
<tr>
<td>Caring</td>
</tr>
<tr>
<td>Equanimity</td>
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*After Nedrow, A et al 2013*
## The dark side

<table>
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<tr>
<th>Positive values</th>
<th>The dark side</th>
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<tbody>
<tr>
<td>Service, altruism</td>
<td>Over-commitment, self-deprivation, entitlement</td>
</tr>
<tr>
<td>Excellence</td>
<td>Perfectionism, invincibility, hiding errors</td>
</tr>
<tr>
<td>Curative competence</td>
<td>Omnipotence, imposter syndrome, self-deprecation</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Need for certainty</td>
</tr>
<tr>
<td>Empathy</td>
<td>Personal distress</td>
</tr>
<tr>
<td>Caring</td>
<td>Neglecting oneself and family</td>
</tr>
<tr>
<td>Equanimity</td>
<td>Distancing, “othering”</td>
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*After Nedrow, A et al 2013*
## Resilience

<table>
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<th>Positive values</th>
<th>The dark side</th>
<th>Resilience</th>
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<tbody>
<tr>
<td>Service, altruism</td>
<td>Over-commitment, self-deprivation, entitlement</td>
<td>Reframing, balance, gratitude</td>
</tr>
<tr>
<td>Excellence</td>
<td>Perfectionism, invincibility, hiding errors</td>
<td>Self-compassion, reflective self-questioning</td>
</tr>
<tr>
<td>Curative competence</td>
<td>Omnipotence, imposter syndrome, self-deprecation</td>
<td>Knowing one’s limitations</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Need for certainty</td>
<td>Knowing what’s unknown, comfort with uncertainty</td>
</tr>
<tr>
<td>Empathy</td>
<td>Personal distress</td>
<td>Compassionate action</td>
</tr>
<tr>
<td>Caring</td>
<td>Neglecting oneself and family</td>
<td>Self-care</td>
</tr>
<tr>
<td>Equanimity</td>
<td>Distancing, “othering”</td>
<td>Engagement</td>
</tr>
</tbody>
</table>

*After Nedrow, A et al 2013*
Why are some people more resilient than others under extreme stress?

- Individual /developmental / psychological
  - Capacity for mentalization and affect regulation
    - Secure attachment style (not avoidant/fearful)
  - Learned self-efficacy (vs learned helplessness)
    - Stress inoculation
  - Self-care and positive self-regard
    - Practice of self-compassion

...and
Why are some people more resilient than others under extreme stress?

- **Individual neuro/endocrine**
  - HPA axis, DHEA, testosterone, neuropeptide Y, serotonin, dopamine, BDNF (neurotropic factor)

- **Social/psychological**
  - Facilitative supportive environment, sense of community

- **Sociobiological**
  - Socially-mediated epigenetic expression
PROMOTING RESILIENCE AND WELL-BEING
Four keys to resilience: not just talking about it

**Self-awareness:** “How can I become more aware of my state of resilience? Burnout? Eudaimonia?”

**Self-monitoring:** “How am I doing, right now?”

**Self-regulation:** “What can I do to restore balance, and who can help?”

**Self-compassion:** “How can I best promote my own growth in the service of becoming a better clinician/teacher/colleague/researcher?”
Individuals
Clinical teams and healthcare microsystems
Admissions committees
Medical schools and their deans
Academic departments and their residency programs
Clinical enterprises and their CEOs

Whose responsibility is the resilience, effectiveness and well-being of the healthcare workforce?
How can health care organizations help?

- Pro-actively identify and reject those at greatest risk?
- Identify, put on probation and remove the bad apples?
- Identify and rehabilitate those who are remediable?
- Do surveys? Promote open communication?
- Provide opportunities for individuals to grow and flourish? On work time? After work? How onerous?
- Mandate personal development? For a few? For everyone?
- Change institutional culture? How?
Organizational approaches

- Clinician well-being surveys (the missing health care quality indicator) → communicate values, be actionable, assess problems and progress (Wallace 2009)

- Enhancing clinician control over work environments, office design, staffing → decreased exhaustion and burnout (Dunn 2007, Ro 2008)

- Stress management programs → lower med errors and malpractice (Jones 1988 – 22 hospitals)
Organizational approaches

- Physician monitoring programs (Canada)
- Impaired physician programs, EAPs – (UCSD)
- Institutes / centers for professionalism and well-being (Mayo, KC Childrens Mercy)
- Peer coaching and support (Rochester, Brigham)
- Required medical student and resident programs (Rochester, Monash, McGill)
- Workshop and seminar series (many, varied)
- Many programs, little data
Mayo

- 9-month institutionally-supported intervention for internists
- Paid q 2 week 60-min lunchtime meetings
- Facilitated group discussions about well-being, distress, meaning, personal resources, connectedness, barriers, bad news, errors, being present
- Improvement in depersonalization, empowerment and engagement at work
- Small or no effects on stress, depression, QOL, job satisfaction, empathy

West CP 2014
COULD MINDFULNESS-BASED PROGRAMS HELP?
Resilience and well-being

Quality of care

Mindful practice

Quality of caring
OPTIMUM WORK ZONE

Pleasant

Unpleasant

Low Emotional Arousal

High Emotional Arousal

Relaxation

Excitement

Boredom

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

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

PRIMARY CARE PHYSICIANS REPORT alarming levels of professional and personal distress. Up to 60% of practicing physicians report symptoms of burnout, defined as emotional exhaustion, de-personalization (treating patients as objects), and low sense of accomplishment. Physician burnout has been linked to poorer quality of care, including patient dissatisfaction, increased medical errors, and lawsuits and decreased ability to express empathy.

Substance abuse, automobile accidents, stress-related health problems, and marital and family discord are among the personal consequences reported. Burnout can occur early in the medical educational process. Nearly half of all third-year medical students report burnout and there are strong associations between medical student burnout and suicidal ideation.

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 improvements in mindfulness (mean change [M], 8.9; 95% confidence interval [CI], 7.0 to 10.8); burnout (emotional exhaustion, Δ = -4.3, 95% CI, -5.6 to -3.0; personal accomplishment, Δ = 4.3, 95% CI, 1.2 to 7.5; empathy, 16.6 to 121.2; Δ = 4.6, 95% CI, 2.2 to 7.0); physician belief scale (76.7 to 72.6, Δ = -4.1, 95% CI, -5.2 to -3.0); total mood disturbance (33.2 to 16.1, Δ = -17.1, 95% CI, -21.1 to -13.1); and personality (conscientiousness, Δ = 0.3, 95% CI, 0.1 to 0.5, 95% CI, 0.3 to 0.7). Improvements in mindfulness were correlated with improvements in total mood disturbance (r = -0.39, P < .001), perspective taking subscale of physician empathy (r = 0.31, P < .001), and personality factors (conscientiousness and emotional stability, r = 0.29 and 0.25, respectively, P < .001).

Conclusions  Participation in a mindful communication program was associated with short-term and sustained improvements in well-being and attitudes associated with patient-centered care. Because before-and-after designs limit inferences about intervention effects, these findings warrant randomized trials involving a variety of practicing physicians.

JAMA. 2009;302(12):1284-1293

For editorial comment see p 1338.

CME available online at www.jamaarchivescme.com and questions on p 1374.

The consequences of burnout among practicing physicians include not only poorer quality of life and lower quality of care but also a decline in the sta...
Cultivating mindfulness

- Individual practices
  - Formal contemplative practices
  - Informal practices
  - Awareness exercises
  - Reflective questions
- Interpersonal practices
  - Narratives and deep listening
  - Appreciative inquiry interviews
  - Insight dialogues
- Community engagement
  - Discussion and commitment
Formal Practice

Two minutes twice daily

Increase as tolerated
Informal practice in the workplace

Each time you are about to see a patient, stop briefly, take a breath and pay attention to the moment

Notice your environment

Notice any thoughts, emotions and bodily sensations
Themes

Perceptual biases
Surprises
Meaningful experiences
Responding to errors
Being with suffering
Burnout
Attraction to patients
Dismissing patients
Self-care and resilience
End-of-life care
Conflict
Teamwork
Physician Well-Being

Maslach Burnout Inventory

- Emotional Exhaustion \(0.62\) \(p<.001\)
- Depersonalization \(0.45\) \(p<.001\)
- Personal Accomplishment \(0.44\) \(p<.001\)

Profile of Mood States

- Total Mood Disturbance \(0.69\) \(p<.001\)
- Depression \(0.55\) \(p<.001\)
- Anger \(0.76\) \(p<.001\)
- Fatigue \(0.81\) \(p<.001\)
Quality of interpersonal care

Jefferson Scale of Physician Empathy
- Total Empathy 0.45  p<.001
- Standing in the patient’s shoes 0.36  p=.003
- Perspective taking 0.38  p=.001

- Physician Belief Scale 0.37  p=.001
  (psychosocial orientation)
Mindfulness and Personality

- Mindfulness (Baer)
  - Total 1.12  p<.001

- Personality Minimarkers
  - Conscientiousness 0.29  p<.001
  - Emotional Stability 0.45  p<.001
# Effects mediated by changes in mindfulness

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Burnout:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>r = -0.32</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>r = 0.33</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td><strong>Mood Disturbance:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Mood Disturbance</td>
<td>r = -0.39</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td>Tension</td>
<td>r = -0.31</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td>Depression</td>
<td>r = -0.34</td>
<td>p &lt; 0.001</td>
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<td>Perspective taking</td>
<td>r = 0.31</td>
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</table>
What did participants say?

Beckman HB et al 2012
Building community

“Simply gathering [physicians]... together into a meeting place where they were invited to reflect more deeply.... Just that is tremendous, and that it happened over a year’s time, I think, was very significant.... It takes time for those stories to unfold. That seemed to me, a real engine for both developing community and fostering introspection.”
Becoming more present

“I will spend extra time with my patients if they need it, but I felt in some ways that it was kind of sucking me dry...

It’s not that I don’t empathize with them anymore, but [now] I feel OK just to listen and be present with them... and I think that in some ways that helps them more...”
“One of the things that comes out of this is that when you establish a practice of thinking more honestly, thinking more clearly, speaking more honestly, that definitely leaks out into your work every day.

It certainly opens you up to being more ready with patients, colleagues, and family, to have ... a more intimate, more honest interaction with people.... That certainly was the case for me that came out in the rest of my work.

It certainly made it much more immediate and easy to do in [my] practice.”
Well being and quality of care

“Originally I was doing it for the stress reduction, and then as time went on…. I’m learning how to communicate … with myself as much as anybody else.... I sort of gave myself permission to start thinking.”
Guilt and permission

“I felt this guilt about being there and not being at home, and my wife didn’t even make me feel guilty. It was just me.”
RESILIENCY = INTENTION + SKILLS + COMMUNITY + INSTITUTIONAL SUPPORT
Lingering questions

- Which elements are most important?
- How to change a culture?
- Role of leadership?
- Individual initiative vs mandated programs?
- Mission drift?
- Why should institutions care about workers’ resilience, well-being or engagement?
Success

what people think it looks like

what it really looks like