How Do You Measure Resident Wellness

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Objectives

- Background on measuring resident wellness and un-wellness
- Our institutional results from measuring burnout
- Resident Wellness Scale (RWS) development process
- Brainstorming on constructs related to resident wellness
- Results from piloting the RWS
- Are you well? survey and its use for your own institution
- Discussion on institutional interventions to improve culture of wellness
Compared to the US population, physicians grow more burned-out and more dissatisfied over time. (Shanafelt et al, 2015)

Over half of surveyed physicians showed at least 1 sign of burnout. (Shanafelt et al, 2015)

As many as 25-75% of medical residents experience burnout, depending on specialty. (Ishak et al, 2009)

Over 300 physicians commit suicide each year. (American Foundation for Suicide Prevention website)

Female physicians have higher rates of depression than age-matched non-physician professional women. (American Foundation for Suicide Prevention website)
Make the “Invisible” Visible

Physicians

Administrators

Patients and Payors

Adapted from Brightman, B. wklf.com
“Physician burnout is a public health crisis”

John Noseworthy, MD
President & CEO Mayo Clinic
AMA Joy in Medicine CEO Consortium 9.14.16

“Burned out clinicians and staff provide burned-out clinician and staff care”
> 50% day indirect patient care

< 1/3 direct patient care
- 1 hr pt care: 3 hr computer
- 1-2 hr EHR beyond shift

Jan 2017: IM residents in Swiss Hospital

Allocation of Internal Medicine Resident Time in a Swiss Hospital: A Time and Motion Study of Day and Evening Shifts

Nathalie Wenger, MD; Marie Méan, MD; Julien Castioni, MD; Pedro Marques-Vidal, MD, PhD; Gérard Waeber, MD; and Antoine Garnier, MD, MBA

Background: Little current evidence documents how internal medicine residents spend their time at work, particularly with regard to the proportions of time spent in direct patient care versus using computers.

Objective: To describe how residents allocate their time during day and evening hospital shifts.

Design: Time and motion study.

Results: Residents were observed for a total of 696.7 hours. Day shifts lasted 11.6 hours (1.6 hours more than scheduled). During day shifts, activities indirectly related to patients accounted for 52.4% of the time, and activities directly related to patients accounted for 28.0%. Residents spent an average of 1.7 hours with patients, 5.2 hours using computers, and 13 minutes doing both. Time spent using a computer was scattered throughout the day, with the heaviest use after 6:00 p.m.
Maslach Burnout Inventory

**Personal Accomplishment**
Higher scores indicate that residents and faculty are actively engaged in a positive manner that makes a difference. They perceive their impact as palpable.

**Emotional Exhaustion**
Higher scores indicate that residents and faculty are energized by their work, and there is minimal negative carryover into one’s off hours.

**Depersonalization**
Higher scores indicate that residents and faculty have not lost their ability to empathize with patients and maintain warm, open relationships with patients that promote effective care.

**Satisfaction with Medicine**
Higher scores indicate that residents and faculty derive a great deal of satisfaction from their chosen career and do not regret the decision to enter the field.
Measuring Burnout...

- Overall results look great! But...
- Mathematically there is a ceiling effect in measuring burnout.
- Because of the sensitive nature of some items, respondents must feel comfortable about their true feelings.
- Anonymous nature precludes using it as a screening tool.
- “Sensitization” to burnout phenomenon due to personal expectations and beliefs.
- Validity: is expressing burnout a measure for dissatisfaction with job or a measure of depression (prevails all aspect of life).
- Designed for all professions, but is healthcare different?
- Communicates message of impending doom.
- Not helpful for designing program level interventions.
Physician Wellness

“We must move beyond the pathological focus upon physician burnout and begin a conversation about what makes a physician well.”

Strategies associated with Residents’ Mental Well-Being: (Shanafelt et al, 2005)

- Focus on Work/Life Balance
- Positive Outlook
- Religiosity and Spirituality

Wellness is a complex construct

Eudaimonic well-being (fulfillment) differs from Hedonic well-being (happiness) (Ryan & Deci, 2001)
The Resident Wellness Scale

- Measures Wellness specific to Resident Physicians
- Reliable and valid
- Concise and scalable
- Open access
- Focused on identifying gaps in program learning environment
- Tracked overtime can measure effects from interventions
Step 1: Define the Construct
- Panel of stakeholders
- Residents, Educators, DIO’s
- Listed aspect of wellness
- Described observable signs of wellness
- Identified related and unrelated constructs
- Decided on item format

Step 2: Generate Items
- Wider pool of participants
- Residents, Administrators, Faculty, Program Directors, Counselors
- Wrote and review 93 scale items

Step 3: Pilot Long Form
- 92 candidate scale items
- Depression (BDI) and Burnout (A-MBI)
- Optimism (LOT-R), Life Satisfaction (SWL)
- Social Desirability (SD), Personality (TIPI)
- Completed by 62 residents

Step 4: Analyze to Create Instrument
- Identified 10 items
- Correlated appropriately with related and unrelated constructs
- All positively worded items
Define Resident Wellness

KEEP CALM
Its Activity Time
Step 1: Define the Construct

**Life Security:** your basic needs are met

**Meaningful Work:** your work is valued

**Personal Growth:** you are in control

**Ability:** you can do a good job

**Social Support:** people help you

**Institutional Support:** your workplace supports you

**Lack of Unwellness:** you are free of negative behaviors
Step 2: Generate Items & Step 3: Pilot Form

92 items
5-point frequency scale
3 week period
Compiled into web form
Convergent Validity of Scales:

Depression and Burnout were correlated:

- Beck Depression Inventory (BDI) with Depersonalization (DP): $r = +.25$
- BDI with Emotional Exhaustion (EE): $r = +.57$
- DP with EE: $r = +.42$

Optimism and Life Satisfaction were correlated:

- Life Orientation Test - Revised (LOT) with Satisfaction with Life (SWL): $r = +.66$
- LOT with SWL: $r = -.39$
- LOT with BDI: $r = -.52$
Step 4: Scale Creation:

- Random selection of items
- Random swapping out items
- Keep iterations with best stats

Automatic Scale Generation & Refinement

Authors Adjust for Face Validity

- Remove redundant items
- Measure entire definition
- Remove awkward items
<table>
<thead>
<tr>
<th>The Resident Wellness Scale (RWS)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflected on how your work helps make the world a better place</td>
<td>2.97 (1.20)</td>
</tr>
<tr>
<td>Felt the vitality to do your work</td>
<td>3.29 (1.00)</td>
</tr>
<tr>
<td>Felt supported by your co-workers</td>
<td>3.77 (0.84)</td>
</tr>
<tr>
<td>Had an enjoyable interaction with a patient</td>
<td>3.84 (0.81)</td>
</tr>
<tr>
<td>Was proud of the work you did</td>
<td>3.71 (0.91)</td>
</tr>
<tr>
<td>Was eager to come back to work the next day</td>
<td>2.92 (1.01)</td>
</tr>
<tr>
<td>You felt your basic needs are met</td>
<td>3.85 (1.01)</td>
</tr>
<tr>
<td>You ate well</td>
<td>3.50 (1.00)</td>
</tr>
<tr>
<td>Knew who to call when something tragic happened at work</td>
<td>3.31 (1.20)</td>
</tr>
<tr>
<td>You felt connected to your work in a deep sense</td>
<td>3.35 (1.01)</td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong></td>
<td><strong>3.46 (0.68)</strong></td>
</tr>
</tbody>
</table>
The Resident Wellness Scale

- High Cronbach’s alpha: $\alpha = .87$
- Correlated with Depression: $r = -.45$
- Correlated with Burnout:
  - Emotional Exhaustion: $r = -.59$
  - Depersonalization: $r = -.45$
- Correlated with Optimism: $r = .46$
- Correlated with Life Satisfaction: $r = .58$
- Weaker correlation with Social Desirability: $r = .29$
The Resident Wellness Scale

Personality (TIPI) scores and Wellness:

- **Openness** was associated with Wellness: $r = .51$
- **Emotional Stability** was associated with Wellness: $r = .43$
- **Conscientiousness** was associated with Wellness: $r = .31$
- **Agreeableness** was slightly: $r = .13$
- **Extraversion** was not: $r = .07$
Are you well?
No, you are a person.

http://www.gme.wayne.edu/wellness
Wellness by Year

Year 1  Year 2  Year 3  Year 4  Year 5+

5

4

3

2

1
Our Journey: The “4th Aim”

“Care of the Patient Requires Care of the Provider.”

Bodenheimer and Sinsky

Ann Fam Med 2014
The way a group thinks, acts, and interacts

By design or by default?
Comprehensive Approach to 4th Aim
Improved Clinician Experience

Wellness and Burnout Education

Crisis Management

Culture and Connection

4th Aim Continuous Improvement

How?
Design and Implement Interventions

Inoculate trainees against stress in their future careers

- Wellness advisory committee (Resident Council)
- Peer mentorship program
- Communication project: Facebook, blog, twitter, Google hang outs
- “Residents as Teachers” Certificate program (culminating edu. project to improve environment; professional empowerment)
- Resources for self-care and fitness
- Community service initiatives
- Social events, wellness activities
Ultimate Goals

- Transition from individual to program to institutional level
- Test impact of learning environment interventions
- Foster and assess culture of wellness