What is Resident Well-being and Why Should We Care about it?

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Disclosure

• Dr. Baldwin and Mr. Yaghmour are paid employees of the ACGME.
• We have no financial interests to disclose.
Variation and Complexity in Residency Training

“EVERY RESIDENT IS IN SOME RESPECTS:

• LIKE ALL OTHER RESIDENTS

• LIKE SOME OTHER RESIDENTS

• LIKE NO OTHER RESIDENT”

Adapted from Kluckholm and Murray
Changing Issues for Residency Training

- Increased Workload
- Hi-Technology (EHR)
- Constantly connected (24/7)
- Knowledge explosion
- ACGME Regulations
- Accountability
- Complexity of Medical care
- Faculty Absence

A

B

Time

Safety

Sleep

Well-being

Work

Time
Shifting Dimensions of Subjective Well-being in Graduate Medical Education

![Graph depicting the shifting dimensions of subjective well-being in graduate medical education.](image)
Changes in the Career of a Battered Humanist

• Stage 1. 1949-61. Clinician/Teacher 12 years   Age 27yrs.
• Stage 2. 1961-67. Researcher 6 years   Age 39 yrs.
• Stage 3. 1968-85. Educator/Administrator 17 years   Age 46yrs.
• Stage 4. 1985-2016. Researcher   Age 63yrs.
•        1985-2002. AMA Dir. of Education Research/Scholar 17yrs.
•        2002-2016. ACGME Senior Scholar in Residence 14 yrs.
Changing Features of Residents’ Lifespace

• Until 1960’s, Largely male, white, single, lived in hospital, little or no compensation, long work hours. Good teaching, largely satisfied

• 1970s: More women, married, living outside, minimal salaries, increasing workload, Resident Activism, Unions, Strikes. Stress (“Resident Stress Syndrome”), depression. Increasing complaints.

• 1980s: Increasing stress, work hours, workload, debt, impairment, substance abuse, mistreatment, Libby Zion. AMA “Resident Stress and Impairment Workshops”. Salaries, Support Services, Beginning resident representation.

• 1990s: Work hours, Sleep deprivation, debt, fatigue. Salaries, representation

• 2000s: Duty hours reform, fatigue, workload compression, supervision, med errors, patient safety, work-life balance, lifestyle, CRCR. Wellness

• 2010+ Burnout, depression, sleep deprivation, suicide. Well-being.
Changes in Focus of Resident Research

• 1970’s. Stress—Impairment---Fatigue
• 1980’s. Substance Abuse---Depression---Mistreatment—Sexual Abuse—
  Work Hours---Sleep Deprivation---Loss/Attrition—Suicide.
• 1990’s. Sexual Harassment--- Racial Discrimination—Physical Abuse—
  Unprofessional/Unethical Behavior--Cheating– Falsification
    of Medical Records –Sleep Deprivation---Med Errors---
  Safety---Indebtedness---Moonlighting---Supervision.
• 2000’s. Work Compression---Workload---Depression---Burnout---Suicide
Listening for the Voice of the Residents

• When I arrived at the AMA, there was little in the literature about the lives and experience of residents-in-training. Some articles in the 70’s and early 80’s had begun to question or describe isolated cases of abuse and harassment, stress, depression, alcohol and drug abuse and impairment, as well as increasing cynicism and loss of idealism in both medical students and residents.

• My first job was to explore and confirm these reports with a more systematic and structured approach and I immediately began to survey students and residents about these issues.

• When Med student research revealed distressing negative findings which were dismissed as “only student complaints”, I turned to surveying residents in effort to gain empirical data on similar complaints.

• Both AMA and AAMC mandated elimination of such abuse, and latter established required questions on Annual Graduation Questionnaire.
The Emerging Voice of the Residents

• Empirical studies (surveys and spontaneous resident comments) over the past 10/20 years have not only confirmed earlier concerns, but revealed a large body of evidence that the life and experience of residents had become onerous and potentially dangerous to their personal and professional development, as well as to the care of their patients.

• Major surveys in 1989 and again in 1999. (Latter data used in IOM’s report on Resident Work Hours as pre-Duty Hours (2003) baseline.)

• 2009 survey first to examine variations in resident experience, both individually and programmatically. Developed Structural Equation Model.

• 2013-16 Optional addition on required Annual Resident Survey queried
Changing Models and Concepts

1. Disease Model to Health Model: (Cure to Care) (WHO 1948 & 2005)
2. Deficit (negative) Clinical Model to Support (positive) Clinical Model
3. Mental Illness Model to Mental Health Model
4. Stress Model to Distress Model to Eustress Model to Self-actualization Model.
5. Individual Model to Group Model to Team Model to Systems Model
6. Unidimensional Models to Multidimensional Models
7. Simplistic Linear Model (causal, mechanistic) to Complexity Model (dynamic, unpredictable, emergent, interactive)
8. Strategic Planning Model to Continuous Improvement Model
Changing Educational Concepts and Models

From:
1. Apprentice Model to Scheduled Exposure, Sequence-Learning Model
2. Reward-Punishment Model to Choice and Challenge Model
3. Production Education Model (standardized, assembly-line, product development) to Transformational Model (formation, developmental, adaptive, holistic, professional identity formation)
4. Time-based Education Model to Competency-based Education Model to Capability-based Education (flexible, adaptive) Model
Coping with Complexity: Educating for Capability

• COMPETENCE is what individuals know or are able to do in terms of knowledge, skills, and attitudes.

• CAPABILITY is the extent to which individuals can adapt to change, generate new knowledge, and continue to improve their performance.

Fraser SW and Greenhalgh T.
BMJ 2001;323:799-803
Competence and capability in complex adaptive systems (based on Stacey\textsuperscript{14} and Stephenson\textsuperscript{15})
Education for Capability
(What would it look like?)

Capability is enhanced through feedback on performance, the challenge of unfamiliar contexts, and the use of non-linear methods such as story telling and small group, problem based learning.

Education for capability must focus on process (supporting learners to construct their own learning goals, receive feedback, reflect, and consolidate) and avoid goals with rigid and prescriptive content.

BMJ 2001; 323:799-803
PROCESS-ORIENTED LEARNING METHODS

1. INFORMAL AND UNPLANNED LEARNING
   a. EXPERIENTIAL LEARNING---shadowing, apprenticeship, rotational attachments
   b. NETWORKING---during conferences and workshops, poster sessions, program breaks
   c. LEARNING ACTIVITIES---reflection exercises, group discussions
   d. BUZZ GROUPS DURING LECTURES---turn to neighbor and discuss material or conduct short task
   e. FACILITATED LIST SERVICES
   f. TEACHBACK OPPORTUNITIES---newly skilled workers train others in new techniques and sharing their understanding
   g. FEEDBACK---responses that provide the learner with information on the real or projected outcome of their actions

BMJ 2001;323:799-803
PROCESS-ORIENTED LEARNING METHODS

2. SELF DIRECTED LEARNING

a. MENTORING---named individuals provide support and guidance to self directed learners

b. PEER SUPPORTED LEARNING GROUPS---the small group process is used for mutual support and problem solving

c. PERSONAL LEARNING LOG---a structured form for identifying and meeting new learning needs as they arise

d. APPRAISAL---a regular, structured review of past progress and future goals

e. FLEXIBLE COURSE PLANNING---explicit incorporation of input from earners at key stages

f. MODULAR COURSES---with high degree of variety and choice

BMJ 2001;323:799-803
PROCESS-ORIENTED LEARNING METHODS

3. NON-LEARNER LEARNING

  a. CASE BASED DISCUSSIONS---clinical case discussions, grand rounds, significant event audit
  
  b. SIMULATIONS---practicing unfamiliar tasks in unfamiliar contexts by modeling complex situations

  c. ROLE PLAY
  
  d. SMALL GROUP, PROBLEM BASED LEARNING
  
  e. TEAMBUILDING EXERCISES---activities focused on the group’s emergent performance rather than that of the individual

BMJ 2001;323:799-803
THE PARADOX OF OUR TIME

• “THE INEFFICIENCY OF EFFICIENCY
• AND
• THE EFFICIENCY OF INEFFICIENCY”

“God’s Hotel”, Victoria Sweet
TOWARD A CONCEPTUAL MAP OF RESIDENT WELL-BEING

Baldwin-Sardo
11/17/15
Toward a Definition of Well-being

• GIVEN AN EXPANDING UNIVERSE AND AN INCREASINGLY CHANGING AND EVOLVING WORLD, ANY ATTEMPT TO ARRIVE AT A SATISFACTORY WORKING DEFINITION OF WELL-BEING MUST REFLECT AND BE CONCEIVED IN TERMS COMENSURATE WITH ITS INNATE COMPLEXITY: CONSTANTLY CHANGING, DYNAMIC, EMERGENT, CREATIVE, NON-LINEAR, UNBOUNDED, EPHEMERAL, AS WELL AS WITH PHYSICAL, PSYCHOLOGICAL, EMOTIONAL, SOCIAL, MORAL, ETHICAL, SPIRITUAL, POLITICAL, AND ECONOMIC DIMENSIONS (AND AS YET UNKNOWN OTHERS), EACH INTERACTING WITH AND AFFECTING THE OTHERS.
The Most Interesting Man in Medicine

By ED PAC - October 2, 2016

• Admitted to med school with a nod and a smile.
• Once delivered a baby without using his hands.
• Everyone can read his signature.
• His pain scale goes up to 11.
• The lead surgeon assists him and cuts his suture.

http://gomerblog.com/2016/10/the-most-interesting-man-in-medicine%E2%80%8F/ - ED PAC
Context

• Core Program Requirements
• Goal of GME
Potential Threats to Achieving Goal

• Inadequate teaching, supervision
• Toxic learning environments
• Competing priorities of Faculty
• Workload, caseload, cognitive load
• Inability of the resident to progress
  • Life events, Illness
  • Insufficient coping skills, immaturity, fragility
The Impaired Individual Resident
Advantages of the Impaired Individual Perspective

• Clinical heuristic of illness:
  individual illness → provide treatment → return to normal

• Tailored interventions
  • Resiliency
  • Improved work-life balance
  • Change of diet, exercise, or sleep habits
  • Mindfulness-based self-reflection (MBSR)
## Toolkit: Mental Health Continuum
From Resident Doctors of Canada

<table>
<thead>
<tr>
<th>Healthy</th>
<th>Reacting</th>
<th>Injured</th>
<th>Ill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balanced mood; minor mood fluctuations</td>
<td>Nervousness, sadness</td>
<td>Anxiety, pervasive sadness</td>
<td>Excessive anxiety, depressed mood</td>
</tr>
<tr>
<td>Calm, cooperative, empathic</td>
<td>Irritability, displaced sarcasm</td>
<td>Negative attitude, declining empathy, anger</td>
<td>Anger outbursts, aggression</td>
</tr>
<tr>
<td>Takes things in stride</td>
<td>Overwhelmed</td>
<td>Feeling hopeless or worthless</td>
<td>Suicidal ideation</td>
</tr>
<tr>
<td>Consistent performance</td>
<td>Procrastination, forgetfulness, decreased efficiency</td>
<td>Declining clinical performance, presenteeism</td>
<td>Unable to perform duties or concentrate, absenteeism</td>
</tr>
<tr>
<td>Few sleep difficulties</td>
<td>Trouble sleeping; few intrusive thoughts and nightmares</td>
<td>Restless, disturbed sleep; recurrent intrusive thoughts and nightmares</td>
<td>Can’t fall asleep or stay asleep; constant fatigue</td>
</tr>
<tr>
<td>Physically well, good energy level</td>
<td>Muscle tension, headaches, low energy</td>
<td>Significant physical and mental fatigue</td>
<td>Physical illnesses, exhaustion</td>
</tr>
<tr>
<td>Socially engaged</td>
<td>Decreased social engagement</td>
<td>Social avoidance or withdrawal</td>
<td>Social isolation</td>
</tr>
<tr>
<td>Responsible alcohol use, no illicit substance use</td>
<td>Increased alcohol/substance use</td>
<td>Alcohol/substance abuse</td>
<td>Alcohol/substance dependence or addiction</td>
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### ACTIONS TO TAKE
- Identify and nurture support systems
- Focus on the task at hand
- Break problems into manageable chunks
- Foster a healthy work environment
- Set example for others
- Maintain a healthy lifestyle
- Review insurance coverage

- Familiarize yourself with mental health resources
- Recognize limits and take breaks
- Say “no” to new commitments
- Identify and minimize stressors or unhealthy situations
- Try to get adequate rest, food, and exercise

### ACTIONS TO TAKE
- Consider accessing mental health resources
- Prioritize: your self-care is now more important
- Identify and understand own signs of distress
- Ask for help
- Talk with someone
- Maintain social contact, don’t withdraw

### ACTIONS TO TAKE
- Access mental health resources
- Reprioritize: consider formal time off
- Seek formal medical attention
- Follow health care provider recommendations
Drawbacks of the Impaired Individual Model

- Stigma
- Blame
- Implies preventability
- **Disempowering: Difficult to identify, challenging to intervene**
  - Program Directors
  - Institutional Leadership
  - Accrediting Bodies
ACGME Levers of Intervention

• Accreditation
  • Survey data
  • Site visits
  • Yearly self-study

• Milestones:
  • Competency domains
  • Clinical Competency Committees
  • Feedback processes

• Clinical Learning Environment Review (CLER)
  • C-suite engagement
  • Pathways to Excellence
  • Report of Findings: Areas of Focus
Broadened Definition of Mental Health

• World Health Organization
• Mental Health ≠ Absence of Mental Illness
Elements of Mental Health
Adapted from Westerhof and Keyes

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Psychological Well-being  Social Well-being

- Autonomy
Elements of Mental Health
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Psychological Well-being

• Positive Relations with Others

Social Well-being
Elements of Mental Health
Adapted from Westerhof and Keyes

Psychological Well-being

• Environmental Mastery

Social Well-being
Elements of Mental Health
Adapted from Westerhof and Keyes

Psychological Well-being

- Personal Growth

Social Well-being
Elements of Mental Health
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Psychological Well-being

Social Well-being

• Social Coherence
Elements of Mental Health
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Psychological Well-being

Social Well-being

• Social Acceptance
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Psychological Well-being  Social Well-being

• Social Actualization
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Psychological Well-being

- Self-acceptance
- Purpose in Life
- Autonomy
- Positive Relations with Others
- Environmental Mastery
- Personal Growth

Social Well-being

- Social Coherence
- Social Acceptance
- Social Actualization
- Social Contribution
- Social Integration

- Social Integration
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Making Meaning
Over the last 2 weeks, on how many days have you felt that you did NOT have enough time to think and reflect?
Over the last 2 weeks, how many days have you felt like you had too much to do and too little time at work?
Elements of Mental Health
Adapted from Westerhof and Keyes

Psychological Well-being  Social Well-being

• Positive Relations with Others
Reported days being treated unprofessionally or being belittled or humiliated

- **Belittled or Humiliated**: 76.5%
- **Treated Unprofessionally**: 54.8%

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<th>Frequency</th>
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<th>Treated Unprofessionally</th>
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<tr>
<td>None</td>
<td>76.5%</td>
<td>54.8%</td>
</tr>
<tr>
<td>1 or 2</td>
<td>16.3%</td>
<td>28.4%</td>
</tr>
<tr>
<td>3 to 7</td>
<td>5.3%</td>
<td>13.1%</td>
</tr>
<tr>
<td>8 to 14</td>
<td>1.9%</td>
<td>3.6%</td>
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N = 16,985; Data from 2014 Resident Well-Being Survey
Specialties reporting any unprofessional treatment and belittlement or humiliation

<table>
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<th>Belittled or Humiliated</th>
<th>Treated Unprofessionally</th>
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<tr>
<td>Ortho</td>
<td>42%</td>
<td>23%</td>
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<tr>
<td>IM</td>
<td>43%</td>
<td>21%</td>
</tr>
<tr>
<td>Psych</td>
<td>44%</td>
<td>21%</td>
</tr>
<tr>
<td>Peds</td>
<td>44%</td>
<td>19%</td>
</tr>
<tr>
<td>FM</td>
<td>46%</td>
<td>24%</td>
</tr>
<tr>
<td>Med/Peds</td>
<td>46%</td>
<td>17%</td>
</tr>
<tr>
<td>Gen Surg</td>
<td>52%</td>
<td>31%</td>
</tr>
<tr>
<td>EM</td>
<td>53%</td>
<td>27%</td>
</tr>
<tr>
<td>Neuro Surg</td>
<td>37%</td>
<td>59%</td>
</tr>
<tr>
<td>Ob/Gyn</td>
<td>61%</td>
<td>35%</td>
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Depression and Mistreatment

- Residents and Fellows reporting being belittled or humiliated at least once during the past two weeks were **4.6 times** more likely to screen positive for depression on the PHQ-2 than those who did not report belittlement and humiliation.

- Females: 3.8 times
- Males: 5.8 times

N = 10,837; Data from 2016 Resident Well-Being Survey
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I always find new and interesting aspects in my work.

N = 11,328; Data from 2016 Resident Well-Being Survey
I find my work to be a positive challenge.

N = 11,287; Data from 2016 Resident Well-Being Survey
I feel more and more engaged in my work.

N = 11,290; Data from 2016 Resident Well-Being Survey
After work, I tend to need more time than in the past in order to relax and feel better.

N = 11,310; Data from 2016 Resident Well-Being Survey
During my work, I often feel emotionally drained

N = 11,294; Data from 2016 Resident Well-Being Survey
After my work, I usually feel worn out and weary.

N = 11,272; Data from 2016 Resident Well-Being Survey
Measurement
Validated scales for research

• Depression
  • PHQ-2, PHQ-9
  • CESD-10

• Burnout
  • Maslach Burnout Inventory (English version not yet free for public use)
    • Abbreviated version available publicly (9 items)
  • Oldenburg Burnout Inventory (16 items)
  • Copenhagen Burnout Inventory (19 items)

• Engagement
  • Utrecht Work Engagement Scale (17 items)
Consequential Validity

• How will we use the data to improve care, teaching, or wellness?
  • May require some qualitative work before simply sending out surveys.

• If your program or institution has low rates of burnout or depression?
  → Find out what it is about your environment that is working and then disseminate!

• Higher rates? → Implement a feasible intervention
What the ACGME currently measures

Compliance:

• Duty hours
• Adequacy of supervision
• Educational quality
• Fear and intimidation

Non-accreditation measures:

• Milestones ratings
• Characteristics of the learning environments at the program and institutional levels
• Informal feedback
Next Steps

• Integrate Well-Being into Residency Training
• Find Opportunities to Make Meaning
• Measure consistent constructs across sites
  • Validate existing scales with residents
  • Create new scales
• Decide how we will use survey data before collection
Forces out of our control
Adapted from the Common Program Requirements

• Faculty do give value, context, and meaning to patient interactions
• An appropriately rested resident will offer better patient care
• Resident well-being is directly affected by a program’s learning environment
• Residents and faculty are often the only ones that are able to recognize impairment, including illness and fatigue, in themselves and their peers
• Residents must learn the scope of their own authority and the circumstances of their conditional independence for their own personal growth and autonomy as well as for the safety of their patients
References


http://www.fresno.ucsf.edu/wellness/documents/MaslachBurnout.pdf