Utilizing the Resident Wellness Scale to Assess Impact of Interventions on Resident, Program, and Institutional Levels

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The Resident Wellness Scale
- History and development
- Subscales and validity

Describe 3-level model

**Breakout:** List forces at multiple levels

Multi-level model results

**Breakout:** Develop intervention plans

Discussion
The Importance of Wellness

“Burned out clinicians and staff provide burned-out clinician and staff care”

Residents with depression or depressive symptoms: 25.3% to 32.5%

“We must move beyond the pathological focus upon physician burnout and begin a conversation about what makes a physician well.”
Eckelberry-Hunt, van Dyke, Lick, & Tucciarone (2009)
Systematic Approach to Wellness

- Acknowledge issue, involve stakeholders
- Assess:
  - Outline metric
  - Choose validated instrument
  - Compare with benchmarks
  - Review and analyze
- Intervene
  - Monitor regularly
  - Promote health (exercise, nutrition, mindfulness, fatigue mitigation)
  - Peer support (social events, common space)
  - Institutional culture (policies, mission, “just culture”, efficient work flow)
  - Support services (mental health, EAP)
  - Professional development (time management, leadership, teamwork)
Wellness is a complex construct
What Differentiates Well from Unwell Residents?

**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
The Resident Wellness Scale

- Positively Worded
  - High score indicates high wellness
  - Behaviors and feelings of wellness
  - Derived from qualitative data
- Brief
  - 10 items
  - Online
  - Immediate feedback

<table>
<thead>
<tr>
<th>Item</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
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<tbody>
<tr>
<td>Reflected on how your work helps make the world a better place</td>
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<td>Felt the vitality to do your work</td>
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<td>Felt supported by your co-workers</td>
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<td>Knew who to call when something tragic happened at work</td>
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<td>You felt connected to your work in a deep sense</td>
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Convergent Validity

- 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: $r = .29$
Data Sharing Agreement
• Between WSU and another institution
• IRB exemption, business-office approved

Institution added to RWS database
• Institution code
• Institution-specific URL for residents
• "Site" variable for group identification
• Custom feedback page
• Login/Password to retrieve data

http://gme.wayne.edu/wellness/RWSFAQ.html
Results: Multi-level Model

- 5 Institutions
- Each institution has 2 to 12 programs
- Each program has 1 to 23 responses
- Total N = 210
Orthogonal Components

Two Principal Components: eigenvalue > 1

High unidimensionality

Varimax-rotate first 2 components:

 Meaningful Work:
• Reflected on how your work helps make the world a better place
• Was eager to come back to work the next day
• You felt connected to your work in a deep sense

 Self Care:
• You ate well
• You felt your basic needs are met
Gender effects

- Significant findings:
  - Females feel less supported by co-workers ($t(203) = -2.2, p<.05$)
  - Females are less eager to come back to work each day ($t(203) = -2.5, p<.05$)
  - Females feel less like their basic needs are met ($t(203) = -2.2, p<.05$)

- Trends:
  - Females feel less proud of their work ($t(203) = -1.8, p<.10$)
  - Females less likely to have eaten well ($t(203) = -1.8, p<.01$)
Post Graduate Year effects

Meaningful Work

Self Care
Interventions

- Ulliance Employee Assistance Program
- Wellness Warriors
- Wellness round-table at Annual Institutional Review
- ICU Hours
- Fitbit Challenge
- Daily Puzzles
- Wellness Initiative Survey
- Morning Coffee Sessions
- Yoga starting soon
3-Level Model: Institution Forces
3-Level Model: Program Forces

Institution A

Program 1
- R1
- R2
- R3

Program 2
- R4
- R5
- R6

Institution B

Program 3
- R7
- R8
- R9

Program 4
- RA
- RB
- RC
3-Level Model: Resident Forces

Institution A
- Program 1:
  - R1
  - R2
  - R3
- Program 2:
  - R4
  - R5
  - R6

Institution B
- Program 3:
  - R7
  - R8
  - R9
- Program 4:
  - RA
  - RB
  - RC
Breakout: List Multilevel Forces
Results: Multi-level Model

- 5 Institutions
- Each institution has 2 to 12 programs
- Each program has 1 to 23 responses
- Total N = 210
- Mixed Model with REML controls for sample size bias
  - Errs on the side of the global mean when N is low
  - Estimates variance components for each level
Resident Wellness: Meaningful Work

Institutions: A, B, C, E, F
Programs within Institution
Residents within Programs
Resident Wellness: Meaningful Work

- Institution
- Program
- Resident + Error

Meaningful Work

5% 95%
Resident Wellness: Self Care

Institutions: A, B, C, E, F
Programs within Institution
Residents within Programs

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Resident Wellness: Self Care

- Institution
- Program
- Resident + Error

Self Care

22% → Self Care
78% → Self Care
Item-level Institution vs. Program

Institution more impactful

Equally impactful

Knew who to call when something happened at work
Reflected on how your work helps make the world a better place

Felt the vitality to do your work

Had an enjoyable interaction with a patient
Was eager to come back to work the next day
You ate well
Was proud of the work you did
You felt connected to your work in a deep sense
Felt supported by your coworkers

Program more impactful

You felt your basic needs are met
Breakout: Design Interventions
Questions