Thoracic Education Cooperative Group

Opportunities for Research in Thoracic Surgery Education

David Odell – President
Ikenna Okereke – Incoming President
What is TECoG?

• Focused on the development and dissemination of high quality, rigorous research in education
• Initially founded as an independent group, became a formal part of the TSDA in 2017.
  – Open membership model
  – Bimonthly working group calls
  – Help with study development
  – Partner Recruitment
Use Research to Drive Improvement in Thoracic Surgery Education
Surgical Community Came Together for FIRST Trial and Changed National Policy

The Accreditation Council for Graduate Medical Education

DATE: March 10, 2017
FROM: Thomas J. Nasca, MD, MACP, Chief Executive Officer, Accreditation Council for Graduate Medical Education

The ACGME Common Program Requirements Section VI revisions have been approved by the ACGME Board of Directors to be implemented during the 2017-2018 academic year.

At the heart of the new requirements is the philosophy that residency education must occur in a learning and working environment that fosters excellence in the safety and quality of care delivered to patients both today and in the future. An important corollary is that physician well-being is crucial to deliver the safest, best possible care to patients.

In keeping with this philosophy, the changes are supported by testimony from a wide range of physician specialty educators and intended to:

- place greater emphasis on patient safety and quality improvement;
- more comprehensively address physician well-being;
- strengthen expectations around team-based care; and,
- increase flexibility for programs to schedule clinical and educational work hours within the maximum currently utilized in the US.

These revisions were developed as part of the ACGME’s periodic review of all program requirements to ensure that professional preparation of physicians adequately addresses the evolving and growing needs of patients. This review began in 2015 and, over the last year, the Common Program Requirements Phase 1 Task Force reviewed the published scientific literature on the impact of existing standards on the quality and safety of patient care, resident and fellow well-being, and resident and fellow clinical care and education hours.

The NEW ENGLAND JOURNAL OF MEDICINE

FEBRUARY 25, 2016
VOL. 374 NO. 8

National Cluster-Randomized Trial of Duty-Hour Flexibility in Surgical Training

4 Years of Flexibility

Perceptions of Residents in the Flexible Arm of FIRST

Discrimination, Abuse, Harassment, and Burnout in Surgical Residency Training

Figure 1. Frequency of Burnout Symptoms Reported by Surgical Residents, According to Self-Identified Gender.
Shown are the percentages of residents with symptoms of emotional exhaustion, depersonalization, and burnout (either emotional exhaustion or depersonalization).
Considerable Program-Level Variation

- Gender Discrimination
- Racial Discrimination
- Pregnancy/Childcare Discrimination
- Sexual Harassment
- Verbal/Physical Abuse
- Frequent Duty Hour Violations

Program-Level Prevalence, All Residents
Similar Problems in Thoracic Surgery

National Survey of Burnout and Distress Among Cardiothoracic Surgery Trainees

Oliver S. Chow, MD, Monisha Sudarshan, MD, MPH, Mark W. Maxfield, MD, Laura M. Seese, MD, MS, Ammara A. Watkins, MD, Aaron Fleishman, MPH, and Sidhu P. Gangadharan, MD, MHCM

Department of Cardiothoracic Surgery, Weill Cornell Medicine, NewYork-Presbyterian Queens, New York, New York; Department of Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, Ohio; Department of Surgery, UMass Memorial Medical Center

A. How satisfied are you with the balance between your personal and professional life?

B. During the past month, have you often been bothered by feeling down, depressed, or hopeless?

C. How often do you feel burned out from your work?

[Charts and graphs showing data on burnout and distress among cardiothoracic surgery trainees]
Focus Groups and Interviews with PDs

- “Always hearing about burnout and wellness”
- Hard to quantify
  - Programs have no way to measure or benchmark
- Hard to solve
  - Not sure what to implement or even what the options are
  - Interventions are only available by word-of-mouth; no catalog
  - Interventions are context-specific and rarely surgical – not easy to export
  - No robust data on whether existing interventions work
The SECOND Trial

Surgical Education Culture Optimization through targeted interventions based on National Comparative Data (SECOND) Trial
What Leads to Burnout in Surgical Training?

Adapted from Shanafelt
## 2019 SECOND TRIAL LEARNING ENVIRONMENT & RESIDENT WELL-BEING REPORT

### Program Information
- **Program Number:** 1006
- **Program Size:** Large (>27 residents)
- **Program Type:** Academic

This report is based on data from the annual post-ABIMT survey taken by your residents each year. The report is intended to highlight areas where your program is performing well and areas that may merit attention. The "Getting Started" document contains instructions for interpretation of this report. Please email SECONDO@northwestern.edu with any questions or suggestions on how to improve or clarify the report.

### Program's Performance Quartile

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Compared to All Programs</th>
<th>Compared to Large (&gt;27 residents)</th>
<th>Compared to Academic Programs</th>
<th>Q1 Range</th>
<th>Q2 Range</th>
<th>Q3 Range</th>
<th>Q4 Range</th>
<th>Unit of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Burnout (6-Item Composite)</strong></td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>0.0-29.9</td>
<td>30.0-41.9</td>
<td>42.0-52.9</td>
<td>53.0-66.0</td>
<td>% Reporting at least Weekly Symptoms</td>
</tr>
<tr>
<td>Emotional Exhaustion (3-Item Composite)</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>0.0-27.9</td>
<td>30.0-37.9</td>
<td>48.0-70.0</td>
<td>% Reporting at least Weekly Symptoms</td>
<td></td>
</tr>
<tr>
<td>De-personalization (3-Item Composite)</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>0.0-13.9</td>
<td>14.0-21.9</td>
<td>22.0-29.9</td>
<td>30.0-37.0</td>
<td>% Reporting at least Weekly Symptoms</td>
</tr>
<tr>
<td>Personal Accomplishment (3-Item Composite)</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>96.0-100.0</td>
<td>91.0-95.9</td>
<td>84.0-90.9</td>
<td>53.0-83.9</td>
<td>% Reporting at least Weekly Sentiments</td>
</tr>
<tr>
<td><strong>Thoughts of Attrition</strong></td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>0.0-5.3</td>
<td>5.4-10.8</td>
<td>10.9-15.8</td>
<td>15.9-57.9</td>
<td>% Reporting Occurrence</td>
</tr>
<tr>
<td><strong>Suicidal Thoughts</strong></td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>0.0-4.0</td>
<td>0.1-3.2</td>
<td>3.5-6.9</td>
<td>7.0-33.3</td>
<td>% Reporting Occurrence</td>
</tr>
<tr>
<td><strong>Workload &amp; Job Demands (3-Item Composite)</strong></td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>0.0-7.7</td>
<td>7.8-12.0</td>
<td>12.1-17.5</td>
<td>17.6-44.1</td>
<td>Factor Score on 0-100 Scale</td>
</tr>
<tr>
<td>80-hour violations</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>0.0-21.7</td>
<td>21.8-34.8</td>
<td>34.9-49.2</td>
<td>49.3-88.9</td>
<td>% Reporting Any Months of Violations</td>
</tr>
<tr>
<td>1 day off in 7 violations</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>0.0-4.0</td>
<td>0.1-7.0</td>
<td>7.1-13.0</td>
<td>13.1-15.0</td>
<td>% Reporting 2 Months of Violations</td>
</tr>
<tr>
<td>Call &gt;1 in 3 nights violations</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>0.0-4.0</td>
<td>3.5-7.0</td>
<td>4.5-9.0</td>
<td>7.5-60.0</td>
<td>% Reporting 2 Months of Violations</td>
</tr>
<tr>
<td><strong>Resident Camaraderie (3-Item Composite)</strong></td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>3.4-3.8</td>
<td>3.2-3.3</td>
<td>3.0-3.2</td>
<td>2.4-3.0</td>
<td>Factor Score on 0-5 Scale</td>
</tr>
<tr>
<td>Appreciated by co-residents</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>4.3-5.0</td>
<td>4.1-4.3</td>
<td>4.0-4.1</td>
<td>3.5-4.0</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Co-residents among closest friends</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>4.5-6.5</td>
<td>4.3-4.5</td>
<td>4.1-4.3</td>
<td>3.2-4.1</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td><strong>Faculty Engagement (2-Item Composite)</strong></td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>2.7-3.1</td>
<td>2.5-2.7</td>
<td>2.4-2.5</td>
<td>1.7-2.4</td>
<td>Factor Score on 0-5 Scale</td>
</tr>
<tr>
<td>A mentor who genuinely cares</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>4.1-5.0</td>
<td>3.8-4.1</td>
<td>3.6-3.8</td>
<td>2.0-3.6</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Appreciated by attending</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>4.1-4.8</td>
<td>3.9-4.1</td>
<td>3.8-3.9</td>
<td>2.3-3.8</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td><strong>Organizational Culture &amp; Values/Flexibility &amp; Control (4-Item Composite)</strong></td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>3.4-4.0</td>
<td>3.2-3.4</td>
<td>3.0-3.2</td>
<td>1.9-3.0</td>
<td>Factor Score on 0-5 Scale</td>
</tr>
<tr>
<td>Program takes my wellness seriously</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>4.2-4.9</td>
<td>3.9-4.1</td>
<td>3.7-3.9</td>
<td>2.1-3.7</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Program helps decompress/debrief/cope after adverse events</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>3.4-4.6</td>
<td>3.5-3.7</td>
<td>3.2-3.5</td>
<td>2.1-3.2</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Program emphasizes learning not blame from adverse events</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>Q4: Merits Attention</td>
<td>4.1-5.0</td>
<td>3.9-4.1</td>
<td>3.7-3.9</td>
<td>2.6-3.7</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Program responsive to resident concerns</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>3.1-5.0</td>
<td>2.8-3.1</td>
<td>2.5-2.8</td>
<td>2.1-2.5</td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Burnout is a problem in my program</td>
<td>Q3</td>
<td>Q3</td>
<td>Q3</td>
<td>3.4-4.0</td>
<td>3.2-3.4</td>
<td>3.0-3.2</td>
<td>1.9-3.0</td>
<td>Factor Score on 0-5 Scale</td>
</tr>
</tbody>
</table>
## 2020 SECOND TRIAL - VASCULAR SURGERY LEARNING ENVIRONMENT & TRAINEE WELL-BEING REPORT

| 8067 | Large (7-18 trainees) |

This report is based on data from the annual post-VISITE survey taken by your residents and fellows each year. The report is intended to highlight areas where your program is performing well and areas that may merit attention. The "Getting Started" document contains guidelines for interpreting this report. Please email SECOND@northwestern.edu with any questions or for clarifications about your report.

### Your Program's 2020 Performance vs. Benchmarks: Ranges for Exemplary, Non-Outlier, and Outlier Groups for All Programs in the Country

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Exemplary</th>
<th>Not an Outlier</th>
<th>Outlier: Merits Attention</th>
<th>Unit of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burnout (6-Item Composite)</td>
<td></td>
<td></td>
<td></td>
<td>% Reporting at least Weekly Symptoms</td>
</tr>
<tr>
<td>Emotional Exhaustion (3-Item Composite)</td>
<td></td>
<td></td>
<td></td>
<td>% Reporting at least Weekly Symptoms</td>
</tr>
<tr>
<td>Depersonalization (3-Item Composite)</td>
<td></td>
<td></td>
<td></td>
<td>% Reporting at least Weekly Symptoms</td>
</tr>
<tr>
<td>Personal Accomplishment (3-Item Composite)</td>
<td></td>
<td></td>
<td></td>
<td>% Reporting any Occurrence</td>
</tr>
<tr>
<td>Thoughts of Attrition</td>
<td></td>
<td></td>
<td></td>
<td>% Reporting any Occurrence</td>
</tr>
<tr>
<td>Suicidal Thoughts</td>
<td></td>
<td></td>
<td></td>
<td>Factor Score on 0-100 Scale</td>
</tr>
<tr>
<td>Workload &amp; Job Demands (3-Item Composite)</td>
<td></td>
<td></td>
<td></td>
<td>% Reporting any Month's Violations</td>
</tr>
<tr>
<td>Satisfied with time for personal life (e.g., family, hobbies, social life)</td>
<td></td>
<td></td>
<td></td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Satisfied with ability to maintain healthy habits (e.g., exercise, eat healthy)</td>
<td></td>
<td></td>
<td></td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
<tr>
<td>Satisfied with ability to perform health maintenance (e.g., see dentist, PCP)</td>
<td></td>
<td></td>
<td></td>
<td>Avg. Agreement on 1-5 Scale</td>
</tr>
</tbody>
</table>

* not actual program data
Wellness Toolkit is Being Used and Updated

- Program Director Survey (Wellness Inventory)
- Phone calls with program directors & coordinators to clarify/gather additional detail
- Literature review & guidelines
- Program Tours (20-30)
  - Identify by
    - Data
    - PD survey
    - Snowball sampling
  - Observations
  - Interviews/focus groups
  - Policy/procedure review
<table>
<thead>
<tr>
<th>Intervention</th>
<th>Domain</th>
<th>Cost</th>
<th>Effort</th>
<th>Time</th>
<th>Maslow</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADDRESSING MISTREATMENT FROM PATIENTS</strong></td>
<td>Mistreatment</td>
<td>$</td>
<td>$</td>
<td>L</td>
<td>3</td>
</tr>
<tr>
<td><strong>FACING CULTURAL COMPLICATIONS IN M&amp;M</strong></td>
<td>Mistreatment</td>
<td>$</td>
<td>$</td>
<td>L</td>
<td>3</td>
</tr>
<tr>
<td><strong>IMPLICIT BIAS TRAINING</strong></td>
<td>Mistreatment</td>
<td>$</td>
<td>$</td>
<td>L</td>
<td>3</td>
</tr>
<tr>
<td><strong>MICRO-AGGRESSION TRAINING</strong></td>
<td>Mistreatment</td>
<td>$</td>
<td>$</td>
<td>L</td>
<td>3</td>
</tr>
<tr>
<td><strong>RECRUITMENT STRATEGIES FOR A MORE INCLUSIVE PROGRAM</strong></td>
<td>Mistreatment</td>
<td>$</td>
<td>$</td>
<td>L</td>
<td>3</td>
</tr>
<tr>
<td><strong>TRAINING ALLIES</strong></td>
<td>Faculty Engagement</td>
<td>$</td>
<td>$</td>
<td>L</td>
<td>3</td>
</tr>
</tbody>
</table>
Sample Wellness Toolkit Interventions

**Chair:** John Sweeney, MD  
**PD:** Keith Delman, MD  
(kdelman@emory.edu)

**Half-Weekday Off per Month**
- How we did it
- Arranging coverage
- Mitigating safety issues
- Keys to success

**Chair:** Mary Hawn, MD  
**PD:** David Spain, MD  
(dspain@stanford.edu)

**High Performance Team Training**
- How we did it
- Identifying a psychologist who understands surgical training
- Convincing surgeons to go
- Arranging coverage
- What did it cost?
- Keys to success

**Chair:** Rebecca Minter, MD  
**PD:** Jacob Greenberg, MD  
(jgreenberg@uw.edu)

**Lactation Policy**
- How we did it
- Finding appropriate space at each clinical site
- Training faculty/residents
- Keys to success
SECOND Trial for Thoracic Programs

Opportunities

– Leverage the resources built for general surgery
– Provide specific data and tools to programs
– Address ACGME Wellness requirements

Logistics

– Deliver initial survey early in the academic year to begin and then with the ITE thereafter.
– Local IRB process is not required (not human subjects research determination)
Recent publications


• Bharadwaj S, Luc J, Love R, Antonoff M, Odell D. The Unfulfilled Need for Technical Skill Assessments among Academic Cardiothoracic Surgeons. Accepted *Semin Thorac Cardiovasc Surg* March 2021