Building Resilience and Coping with Stress in Medical Practice

Stuart Slavin, MD, MEd
Associate Dean for Curriculum
Professor of Pediatrics
Saint Louis University School of Medicine
The Health Care Setting
A somewhat grim picture
The Health Care Setting
A somewhat grim picture

Medical students
Depression rates- 20-30%
Anxiety and burnout rates greater than 50%
The Health Care Setting
A somewhat grim picture

Medical students
Depression rates - 20-30%
Anxiety and burnout rates greater than 50%

Residents
Burnout rates - 75% and higher
The Health Care Setting
A somewhat grim picture

Medical students
   Depression rates - 20-30%
   Anxiety and burnout rates greater than 50%

Residents
   Burnout rates - 75% and higher

Practicing Physicians
   Depression and suicide
   Burnout - 60%
   Would not recommend the field to their kids - 60-90%
So what’s being done to address this problem?
So what’s being done to address this problem?

Not enough.
The SLU SOM Medical Student Mental Health Initiative

Designed to reduce unnecessary stressors and increase students’ ability to deal with stress
Changes implemented over the past six years
The SLU SOM Medical Student Mental Health Initiative

Designed to reduce unnecessary stressors and increase students’ ability to deal with stress.

Changes implemented over the past six years:
- 2009: Pass/Fail grading in the first two years, longitudinal electives, theme-based learning communities.
- 2010: Mindfulness and Resilience curriculum for first-year students.
- 2011: Changes to the Human Anatomy course.
- 2012: Change to “true” pass/fail in first two years.
- 2013: Shortened pre-clinical curriculum by three months.
- 2014: Confidential tracking of students’ mental health.
# Impact of Curricular Changes in Years 1 and 2

Moderate- Severe Depression Symptoms (Percent of Class) at end of year

<table>
<thead>
<tr>
<th>Year</th>
<th>MS1</th>
<th>MS2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 Pre-change</td>
<td>27%</td>
<td>28%</td>
</tr>
<tr>
<td>2012 Pre-change</td>
<td>27%</td>
<td>35%</td>
</tr>
<tr>
<td>2013 Post-change</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>2014 Post-change</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>2015 Post-change</td>
<td>11%</td>
<td>16%</td>
</tr>
<tr>
<td>2016 Post-change</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>2017 Post-change</td>
<td>8%</td>
<td></td>
</tr>
</tbody>
</table>
## Impact of Curricular Changes in Years 1 and 2

**Moderate- Severe Anxiety Symptoms (Percent of Class) at end of year**

<table>
<thead>
<tr>
<th>Year</th>
<th>MS1</th>
<th>MS2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011 Pre-change</td>
<td>56%</td>
<td>58%</td>
</tr>
<tr>
<td>2012 Pre-change</td>
<td>54%</td>
<td>61%</td>
</tr>
<tr>
<td>2013 Post-change</td>
<td>44%</td>
<td>61%</td>
</tr>
<tr>
<td>2014 Post-change</td>
<td>30%</td>
<td>39%</td>
</tr>
<tr>
<td>2015 Post-change</td>
<td>31%</td>
<td>46%</td>
</tr>
<tr>
<td>2016 Post-change</td>
<td>43%</td>
<td>44%</td>
</tr>
<tr>
<td>2017 Post-change</td>
<td>23%</td>
<td></td>
</tr>
</tbody>
</table>
Impact of Curricular Changes in Years 1 and 2

Performance in Years 1 and 2

No decrease in mean exam scores or increase in failure rate in courses.

Mean step 1 scores have shown significant increase
Mental Health of First-Year Pediatric Residents
Mental Health of First-Year Pediatric Residents

Mean depression scores

2013 Pre-change  21.2
2014 Post-change 13.9
p value .06
## Mental Health of First-Year Pediatric Residents

### Mean depression scores

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-change</th>
<th>Post-change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>21.2</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>13.9</td>
<td></td>
</tr>
</tbody>
</table>

*p value .06*

### CES depression scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-change</th>
<th>Post-change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe (&gt;26)</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Moderate (22-26)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Mild (16-21)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Not signif. (&lt;16)</td>
<td>7</td>
<td>14</td>
</tr>
</tbody>
</table>

*p value <.05*
Mental Health of First-Year Pediatric Residents

Burnout and anxiety

<table>
<thead>
<tr>
<th></th>
<th>Pre-change</th>
<th>Post-change</th>
<th>Pvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depersonalization</td>
<td>10.2</td>
<td>6.4</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>29.6</td>
<td>21.8</td>
<td>.01</td>
</tr>
<tr>
<td>Anxiety</td>
<td>50.6</td>
<td>42.8</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>
Mindfulness, Resilience, and Metacognition
Mindfulness
Mindfulness

Paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.
Mindfulness

Paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.

The first component of mindfulness involves the self-regulation of attention so it is maintained on immediate experience. The second component involves adopting a particular orientation toward one’s experiences in the present moment, an orientation that is characterized by curiosity, openness, and acceptance.
Mindfulness

How to cultivate

Formal practice
Informal practice
Resilience
Resilience

Cognitive restructuring
Resilience

Cognitive restructuring

Risks of maladaptive perfectionism and imposter syndrome
Resilience

Cognitive restructuring
Negativity bias
Resilience

Cognitive restructuring
Negativity bias
Optimistic versus pessimistic explanatory styles
Resilience

Cognitive restructuring
Negativity bias
Optimistic versus pessimistic explanatory styles
Positive emotions
  three good things
  positive inquiry
Resilience

Cognitive restructuring
Negativity bias
Optimistic versus pessimistic explanatory styles
Positive emotions
  three good things
  positive inquiry
Avoiding learned helplessness
Resilience

Cognitive restructuring
Negativity bias
Optimistic versus pessimistic explanatory styles
Positive emotions
  three good things
  positive inquiry
Avoiding learned helplessness
Emotional self-regulation
Resilience

Cognitive restructuring
Negativity bias
Optimistic versus pessimistic explanatory styles
Positive emotions
  three good things
  positive inquiry
Avoiding learned helplessness
Emotional self-regulation
All the above rely to a great degree on metacognition
Finding meaning in work
David Foster Wallace
Kenyon College Address
I have come gradually to understand that the liberal-arts cliche about "teaching you how to think" is actually shorthand for a much deeper, more serious idea: "Learning how to think" really means learning how to exercise some control over how and what you think. It means being conscious and aware enough to choose what you pay attention to and to choose how you construct meaning from experience.
The really important kind of freedom involves attention, and awareness, and discipline, and effort, and being able truly to care about other people and to sacrifice for them, over and over, in myriad petty little unsexy ways, every day. That is real freedom. The alternative is unconsciousness, the default-setting, the "rat race" -- the constant gnawing sense of having had and lost some infinite thing.