Mental Health Across the Educational Continuum: Challenges and Opportunities

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Associate Dean for Curriculum
Professor of Pediatrics
Saint Louis University School of Medicine
The Health Care Setting
A somewhat grim picture
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Medical students
Depression rates 20-30%
Anxiety and burnout rates greater than 50%
The Health Care Setting
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Residents
Burnout rates- 60-75% 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- 60-75% and higher

Practicing Physicians
  Depression and suicide
  Burnout
  Would not recommend the field to their kids- 60-90%
High School and College Student Mental Health
High School and College Student Mental Health

National data

Adolescents- 11.3% with major depressive illness in previous 12 months in 2014, up from 8.7% in 2005

Young adults- 9.6% in 2014, up from 8.8% in 2005
High School and College Student Mental Health

Local Data

Irvington High School, Fremont California
54% with moderate to severe symptoms of depression,
80% with moderate to high levels of anxiety
High School and College Student Mental Health

Local Data

Irvington High School, Fremont California
54% with moderate to severe symptoms of depression,
80% with moderate to high levels of anxiety

Catholic Girls School in the Midwest
44% with moderate to severe symptoms of depression,
84% with moderate to high levels of anxiety
High School and College Student Mental Health

Local Data

Irvington High School, Fremont California
54% with moderate to severe symptoms of depression, 80% with moderate to high levels of anxiety

Catholic Girls School in the Midwest
44% with moderate to severe symptoms of depression, 84% with moderate to high levels of anxiety

Freshmen at Saint Louis University in November 2016
28% with moderate to severe symptoms of depression, 61% with moderate to high levels of anxiety
So what's being done to address this?
So what’s being done to address this?

Not enough.
Saint Louis University Medical Student Mental Health
### Saint Louis University Medical Student Mental Health

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

<table>
<thead>
<tr>
<th>Year</th>
<th>MS1</th>
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<tr>
<td>2008 Pre-change</td>
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Saint Louis University Medical Student Mental Health

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

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The SLU SOM Medical Student Mental Health Initiative
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Designed to reduce unnecessary stressors, help students find meaning in their work, and increase students’ ability to deal with stress.

Interventions implemented over the past seven years were guided by students’ perceptions of stressors and were evidence-based whenever possible.
The SLU SOM Medical Student Mental Health Initiative

Designed to reduce unnecessary stressors, help students find meaning in their work, and increase students’ ability to deal with stress

Interventions implemented over the past seven years

2009- Pass/Fail grading in the first two years, cut curriculum by 10%, instituted longitudinal electives and theme-based learning communities

2010- Resilience and Mindfulness curriculum for first-year students

2011- Changes to the Human Anatomy course

2012- Change to “true” pass/fail in first two years

2014- Confidential tracking of depression and anxiety

2015- Focused support of second year students facing their national board exam
### Impact of Curricular Changes in Years 1 and 2

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

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<td>19%</td>
<td>17%</td>
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<tr>
<td>2011 Post-change</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>2012 Post-change</td>
<td>11%</td>
<td>16%</td>
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<tr>
<td>2013 Post-change</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>2014 Post-change</td>
<td>8%</td>
<td>21%</td>
</tr>
<tr>
<td>2015 Post-change</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>2016 Post-change</td>
<td>6%</td>
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### Impact of Curricular Changes in Years 1 and 2

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

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<tr>
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<td>46%</td>
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External Bench-marking
Association of American Medical Colleges
Year 2 Questionnaire
### AAMC Year 2 Questionnaire Results

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>SLU</th>
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<tbody>
<tr>
<td>Emotional Climate</td>
<td>9.2</td>
<td>10.7</td>
</tr>
<tr>
<td>Student-fac. Interaction</td>
<td>14.8</td>
<td>15.6</td>
</tr>
<tr>
<td>Quality of life</td>
<td>40.6</td>
<td>44.8</td>
</tr>
<tr>
<td>Perceived stress</td>
<td>5.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Disengagement</td>
<td>9.7</td>
<td>8.1</td>
</tr>
<tr>
<td>Exhaustion</td>
<td>11.7</td>
<td>9.1</td>
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</table>
Overall I am satisfied with my medical education.

Strongly agree to strongly disagree
Strongly agree  National 30%   SLU 54%
Plus agree  National 85%   SLU 96%
AAMC Year 2 Questionnaire Results

My medical school has done a good job of fostering and nurturing my development as a physician.

Strongly agree to strongly disagree
Strongly agree National 44%   SLU 63%
Plus agree     National 92%   SLU  97%
AAMC Year 2 Questionnaire Results

My medical school has done a good job of fostering and nurturing my development as a person.

Strongly agree to strongly disagree
Strongly agree National 27% SLU 48%
Plus agree National 71% SLU 90%
Impact of Curricular Changes in Years 1 and 2

But what happened to academic performance???
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.
Failure rate is less than half the national average.
So How Did this Happen???
Psychological Constructs and Mindsets that Put Students at Risk
Psychological Constructs and Mindsets that Put Students at Risk

Comparison
Psychological Constructs and Mindsets that Put Students at Risk

Comparison
Maladaptive perfectionism
Psychological Constructs and Mindsets that Put Students at Risk

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Performance as identity
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Imposter syndrome
Psychological Constructs and Mindsets that Put Students at Risk

Comparison
Maladaptive perfectionism
Performance as identity
Shame, embarrassment, and inadequacy
Imposter syndrome
Stanford duck
Mindfulness, Metacognition, and Resilience
Mindfulness

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

How to cultivate
  Formal practice
  Informal practice
Metacognition
Resilience
Resilience

Cognitive restructuring
Cognitive Restructuring

Adverse event = Outcome
Cognitive Restructuring

Adverse event = Outcome

False!!!

Adverse event + your cognitive/ emotional reaction = outcome
Cognitive Restructuring

Cognitive behavioral therapy

• Thoughts trigger emotions and actions

• When you’re feeling sad or depressed, your thoughts are likely to be distorted and exaggerated

• You can change the way you feel by changing the way you think
Dysfunctional (and predictable) cognitive/emotional reactions
Dysfunctional (and predictable) cognitive/emotional reactions

Magnifying or catastrophizing
All or nothing thinking
Overgeneralization
Tunnel vision
Fortune-telling
Personalization and blame
Mind reading
Should statements
Perfectionistic thinking
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
Resilience

Cognitive restructuring
Negativity bias
Optimistic versus pessimistic explanatory styles
Positive emotions
Emotional self-regulation
Resilience

Cognitive restructuring
Negativity bias
Optimistic versus pessimistic explanatory styles
Positive emotions
Emotional self-regulation
Investing in well-being
What Else Do We Need to Do?
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We need to work to enhance the learning environment.
What Else Do We Need to Do?

We need to work to enhance the learning environment. In clinical years, we have to improve conditions for residents and faculty.
What Else Do We Need to Do?

We need to work to enhance the learning environment. In clinical years- we have to improve conditions for residents and faculty.

In high school, we need to back off of homework, numbers of AP courses, extra-curricular activities, and misguided/ distorted pursuit of the elite college.
What Else Do We Need to Do?

And we need to help students find meaning in their lives.
Viktor Frankl
“There is nothing in the world, I venture to say, that would so effectively help one to survive even the worst conditions as the knowledge that there is a meaning in one's life. There is much wisdom in the words of Nietzsche: “He who has a why to live for can bear almost any how.”