The Healthy Minds Study: What 10 years of data tell us about student mental health & college retention

Sarah Ketchen Lipson, PhD EdM
Assistant Professor, Department of Health Law Policy and Management
Boston University School of Public Health
she/her/hers
NASPA Plenary Session

- Part 1: Prevalence
  - National data (2016-2019)
  - Trends over time (2007-2019)
  - Disparities

- Part 2: Help-seeking and access to treatment
  - National data (2016-2019)
  - Trends over time (2007-2019)
  - Disparities

- Part 3: Mental health and academic performance
  - Longitudinal study
  - Return on Investment calculator

- Q & A: 10-15 mins

Questions and comments throughout!
Wealth of National Data on Student Mental Health

Student Surveys

Counseling Center Client Data

Counseling Center Director Survey
Healthy Minds Network
(healthymindsnetwork.org)

Research-to-practice network based at Boston University & University of Michigan

Objectives:

1. produce knowledge (research)
2. distribute knowledge (dissemination)
3. use knowledge (practice)
Research-Practice Agenda

How to invest most efficiently in mental health (and success and wellbeing) in student populations?

Design and evaluate programs and interventions

Collect descriptive population data

Practitioners
Administrators
Policymakers
Students
Healthy Minds Study
(healthymindsnetwork.org/research/hms)

Study team:
- PIs: Sarah Lipson & Daniel Eisenberg
- Peter Ceglarek
- Hannah Connors
- Matthew Jirsa
- Akilah Patterson
- Megan Phillips
- Amber Talaski
- Adam Wheeler
- Sasha Zhou

~350 campuses, >300,000 student respondents
About HMS

- Annual mental health survey
- Cross-sectional data set
- Online – Qualtrics
- Random student samples at each campus
- Validated screening tools for mental health
- After survey, inform students about mental health resources
1. Demographics
2. Mental health status
3. Services and help-seeking

- Substance use
- Sexual assault
- Eating, body image
- Sleep
- Knowledge attitudes
- Diversity, equity
- Climate, culture
- Financial stress
- Overall health
- Resilience, coping
- Bystander

Over the last 2 weeks, how often have you been bothered by any of the following problems?

- Little interest or pleasure in doing things
- Feeling down, depressed or hopeless
- Trouble falling or staying asleep, or sleeping too much
- Feeling tired or having little energy
- Poor appetite or overeating

Not at all | Several days | More than half the days | Nearly every day
1. Prevalence and Trends
# 2018-2019 HMS Data
(N=62,171 students on 79 campuses)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression (PHQ-9)</td>
<td>36%</td>
</tr>
<tr>
<td>Severe (&gt;15)</td>
<td>18%</td>
</tr>
<tr>
<td>Moderate (10-14)</td>
<td>18%</td>
</tr>
<tr>
<td>Anxiety (GAD-7)</td>
<td>31%</td>
</tr>
<tr>
<td>Severe (&gt;15)</td>
<td>14%</td>
</tr>
<tr>
<td>Moderate (10-14)</td>
<td>17%</td>
</tr>
<tr>
<td>Suicidal ideation (past year)</td>
<td>14%</td>
</tr>
<tr>
<td>Suicide attempt (past year)</td>
<td>2%</td>
</tr>
<tr>
<td>Non-suicidal self-injury (past year)</td>
<td>24%</td>
</tr>
</tbody>
</table>
Trends

Are mental health problems getting worse over time?

Survey Year

Survey respondents from Aggregate Survey Data who screened positive for major depression (PHQ-9) grouped by survey year.
Trends

Are mental health problems getting worse over time?
Explanations for Rise in Mental Health Problems

- Rates increasing among all adolescents and young adults and among college students in other countries
- Strongest factors are likely those that are common to young people throughout the U.S. and world (digital media use)
  - Relatedly, sleep
- Other possible explanations
  - More prone to report distress (more familiar, openly discussed topic)
    - However, subjective feelings (hopelessness, worry) have increased similarly to objective (suicidality), which points to actual increase
  - College environment is more stressful and less supportive
    - Underlying trend not unique to college, however
    - Campuses are unique in terms of opportunities for prevention, early intervention, treatment
<table>
<thead>
<tr>
<th></th>
<th>Depression (PHQ-9&gt;10)</th>
<th>Anxiety (GAD-7&gt;10)</th>
<th>Suicidal ideation (past year)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisgender</td>
<td>25%</td>
<td>21%</td>
<td>10%</td>
</tr>
<tr>
<td>TGNC</td>
<td>60%</td>
<td>44%</td>
<td>40%</td>
</tr>
<tr>
<td><strong>Sexual orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Straight</td>
<td>23%</td>
<td>19%</td>
<td>8%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>44%</td>
<td>35%</td>
<td>23%</td>
</tr>
<tr>
<td>Gay/lesbian</td>
<td>34%</td>
<td>25%</td>
<td>16%</td>
</tr>
<tr>
<td>Questioning</td>
<td>43%</td>
<td>33%</td>
<td>23%</td>
</tr>
<tr>
<td>Other</td>
<td>53%</td>
<td>39%</td>
<td>30%</td>
</tr>
</tbody>
</table>
### Disparities

**Students of Color**

<table>
<thead>
<tr>
<th>Racial identity</th>
<th>Depression (PHQ-9$\geq$10)</th>
<th>Anxiety (GAD-7$\geq$10)</th>
<th>Suicidal ideation (past year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>24%</td>
<td>21%</td>
<td>10%</td>
</tr>
<tr>
<td>African American</td>
<td>28%</td>
<td>20%</td>
<td>12%</td>
</tr>
<tr>
<td>Asian</td>
<td>24%</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>32%</td>
<td>26%</td>
<td>11%</td>
</tr>
<tr>
<td>Multi</td>
<td>33%</td>
<td>26%</td>
<td>14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Depression (PHQ-9$\geq$10)</th>
<th>Anxiety (GAD-7$\geq$10)</th>
<th>Suicidal ideation (past year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Latinx</td>
<td>25%</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Latinx</td>
<td>29%</td>
<td>26%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Today, student debt crisis >$1.5 trillion

Tuition 2013-2017: up $1,000 in state, $5,000 out of state

More students taking out loans over past 10 years

57% regret taking out as many loans as they did, 36% said they would not have gone to college if they fully understood costs

Tuition and loans is a large source of stress for students
Risk Factors

Financial Stress

Current frequency of financial stress

- Never stressful: 6%
- Rarely stressful: 18%
- Sometimes stressful: 37%
- Often stressful: 25%
- Always stressful: 14%

Strong correlation with mental health

- Never stressful: 29%
- Rarely stressful: 30%
- Sometimes stressful: 32%
- Often stressful: 45%
- Always stressful: 60%
Risk Factors
Sense of Belonging

“I feel a part of the campus community.”

- 14% strongly agree
- 30% agree
- 27% somewhat agree
- 11% somewhat disagree
- 11% disagree
- 7% strong disagree

Strong correlation with mental health

- High sense of belonging (strongly agree): 27% current mental health problem
- Low sense of belonging (strongly disagree): 51% current mental health problem
Risk Factors

Discrimination

Depression (PHQ-9>10) 35
Anxiety (GAD-7>10) 28
Suicidal ideation 11

Experienced discrimination
Did not experience discrimination
Racially offensive fliers found at the University of Michigan: ‘Why White Women Shouldn’t Date Black Men’

Anti-immigrant chalkings appear during UMD's first 'Social Justice Day'

By Mitchell Wellman, University of Virginia 9:58 pm EDT April 18, 2017

UT Town Anti-Imr Muslim Campus Psters

30 shares

American University is dealing with an incident on its campus. It is...
Main Take-Aways: Part 1

- High and rising prevalence rates
  - Mounting evidence of upward trends over the past 5-10 years
  - Confluence of factors, some mutable, others less so
- Significant disparities persist, especially for gender and sexual minority students
- Financial stress, discrimination, sense of belonging all important risk/protective factors
2. Help-Seeking
Mental Health Treatment Gap

Most who seek tx do so in crisis
Missed opportunity for early intervention
When Provided, Depression Treatment “Minimally Adequate” in ~50% of Cases

- Among students with significant symptoms and treatment in past year, 57% received “minimally adequate” depression care
  - Minimally adequate = 4+ psychotherapy visits or 2+ months of antidepressant medication
- Among all students with past-year depression, 22% received minimally adequate care
Presumed Barriers
Access, Stigma, Knowledge

Nearly universal (>95%) access to free/highly subsidized services

Stigma among students with untreated symptoms

- Personal: 4.2%
- Public: 24.9%
- No association between public stigma and help-seeking

>66% of students with untreated symptoms have access, positive attitudes, beliefs, knowledge—so why aren’t they seeking help?
Actual Barriers
Inertia, Lack of Urgency

Greatest barriers among students w/ untreated symptoms

- Haven’t had a need (31%)
- Prefer to deal w/ issues on my own (27%)
- Question how serious my needs are (20%)
- Don’t have time (17%)

Perceived need among students w/ symptoms: 43.3%
Stigma

“I Would Think Less of Someone...”

![Graph showing personal stigma percentages over years](chart.png)

Survey Year:
- 2007: 12%
- 2009: 9%
- 2010: 10%
- 2011: 8%
- 2012: 10%
- 2013: 10%
- 2014: 7%
- 2015: 9%
- 2016: 9%
- 2017: 6%
- 2018: 6%
SURGING DEMAND FOR MENTAL HEALTH CARE JAMS COLLEGE SERVICES

Students may wait weeks for a basic consultation; sometimes even longer to see a psychiatrist.

As Students Struggle With Stress and Depression, Colleges Act as Counselors.

COVER STORY

Students under pressure

College and university counseling centers are examining how best to serve the growing number of students seeking their services.

Sarah Ketchen Lipson, Ph.D., Ed.M., Emily G. Latter, Ph.D., Daniel Eisenberg, Ph.D.
Closer Look at Service Use

**High distress** 28%
- Tx (current) 41%
  - Prev yr 29%
  - None 71%
  - Ther only 26%
  - Meds only 40%
  - Ther + meds 34%
- No current tx 59%
  - Prev yr 18%
  - None 82%
  - Ther only 29%
  - Meds only 43%
  - Ther + meds 27%

**Medium distress** 43%
- Tx (current) 26%
  - Prev yr 18%
  - None 82%
  - Ther only 29%
  - Meds only 43%
  - Ther + meds 27%
- No current tx 74%
  - Ther only 28%
  - Meds only 52%
  - Ther + meds 19%

**Low distress** 29%
- Tx (current) 11%
  - Prev yr 10%
  - None 90%
- No current tx 89%

“Distress” based on depression (PHQ-9), anxiety (GAD-7), and ED (SCOFF) symptoms. Cut-offs for high and medium are 15 and 6 for the PHQ-9 and the GAD-7, and 3 and 2 for the SCOFF.

Data from the 2018-2019 Healthy Minds Study (80 campuses, ~60,000 participants)
Disparities
Students of Color

Lifetime Mental Health Diagnoses and Past-Year Treatment Rates by Race/Ethnicity (among students with apparent need)

Sample: N=9,851 students with a positive screen for ≥1 mental health problem (depression, anxiety, eating disorder, past-year non-suicidal self-injury, and/or past-year suicidal ideation)

Data: HMS 2012-2015, 60 campuses
# Help-Seeking Attitudes

**Students of Color**

<table>
<thead>
<tr>
<th>Racial identity</th>
<th>Knowledge (agree)</th>
<th>Personal stigma (agree)</th>
<th>Perceived stigma (agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>81%</td>
<td>7%</td>
<td>50%</td>
</tr>
<tr>
<td>African American</td>
<td>79%</td>
<td>8%</td>
<td>59%</td>
</tr>
<tr>
<td>Asian</td>
<td>78%</td>
<td>20%</td>
<td>58%</td>
</tr>
<tr>
<td>Other</td>
<td>76%</td>
<td>10%</td>
<td>60%</td>
</tr>
<tr>
<td>Multi</td>
<td>80%</td>
<td>8%</td>
<td>55%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Knowledge (agree)</th>
<th>Personal stigma (agree)</th>
<th>Perceived stigma (agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Latinx</td>
<td>80%</td>
<td>9%</td>
<td>52%</td>
</tr>
<tr>
<td>Latinx</td>
<td>79%</td>
<td>7%</td>
<td>55%</td>
</tr>
</tbody>
</table>
Main Take-Aways: Part 2

- Paradoxical truth:
  - Significant increases in student help-seeking in recent years
  - Significant treatment gap still exists (unmet need)
    - Disparities among students of color
- Opportunities for more efficient delivery of campus mental health services
  - Stepped and tiered approaches
  - Many other innovations being developed/tested
3. Mental Health and Academic Performance
A college education has more return on investment for a graduate in the United States than any other nation.

More than 75% of students required to take remedial classes never graduate.

70% of Americans will study at a 4-year college, but less than 2/3 will graduate.

30% of college and university students drop out after their first year.

A high school graduate earns 84% less than a typical graduate from a four-year college.

60% of college dropouts had no help from parents in paying for tuition.

Being unable to balance school, jobs and family is one of the top reasons for dropping out.

**Dropout**

Statistics of a College Dropout

40% of college dropouts have parents with nothing beyond a high school diploma.

50% of college dropouts had incomes lower than $35,000.

Those without a college degree are twice as likely to be unemployed as those with one.

A college degree is worth $365,000 for the average American man after you subtract all the direct and indirect costs over a lifetime.

A college degree is worth $185,000 for the average American woman.
Longitudinal Study:
How does mental health predict academic success?

- Data: random sample of undergraduate and graduate students
  - Baseline: N=2,798
  - 2-Year Follow-up: N=747
- Outcomes: GPA, retention
- Mental health: Depression, anxiety, eating disorders
GPA within Semester

- Depression → lower GPA

- +15 points on PHQ-9 ("mild" to severe depression) →
  - -0.2 in GPA
  - -0.4 drop in GPA if co-occurring anxiety
GPA Over Time

- Negative associations: depression, panic disorder, generalized anxiety, eating disorders
  - Co-occurring anxiety-depression have an additional negative association
- Lack of pleasure and interest in usual activities is strongest negative predictor
Retention

- Drop-out rate
  - 25%: <3.0 GPA, screen positive for a mental health problem
  - 9%: <3.0 GPA, no mental health problems
- Each point on PHQ-9 $\rightarrow$ +0.3% in drop out probability
- +15 points on PHQ-9 $\rightarrow$ +4.7% in drop out probability
Economic Case

Reduced Depression

Increased Retention

Increased Student Satisfaction

Increased Tuition

Increased Lifetime Productivity (earnings)

Benefits to Institution

Benefits to Students and Society

Increased Institutional Reputation & Alumni Donations
Implications for Practice

- Anticipating drop-out
  - Low GPA in previous semester
  - Positive screen for a mental health problem
- Adding mental health criteria would increase drop out identification (from 11% to 30% of all drop-outs)
- On campuses with higher drop-out rates, screening would be more cost-effective (fewer “false positives”)
Return on Investment Calculator

This tool will allow you to calculate the economic returns of services or programs that improve mental health in your student population.

You will be asked a handful of questions about your campus, including:

- Enrollment size
- Approximate institutional drop-out rate
- Approximate per student tuition rate

Based on the information you provided, the calculator will give economic estimates for both your institution and students.

Your proposed services or programs could be focused on mental health treatment or could also seek to prevent mental health issues. They could be new or expanded offerings that your campus is considering, or they could be existing services.

https://umich.qualtrics.com/jfe/form/SV_6xN9QUSIFtgtRQh
ROI Demonstration

Parameters (customizable)
- Student population (enrollment)
- Students receiving new services (treatment or prevention) over one-year period
- Approximate cost of delivering proposed service or program
- Institutional drop-out rate per year
- Tuition

Outcomes
- Number of drop-outs averted due to programs/services
- Total additional revenue for institution from retained students
- Total additional lifetime earning (productivity) for your graduates
ROI Demonstration

Service Assessment Questions

The following questions ask about the services/programs you are assessing.

Your responses will be anonymous—please do not provide any institutional or personal identifying information.

The primary purpose of your responses is to provide you with your return on investment (R.O.I.) calculation. The Healthy Minds Network also saves all responses for aggregate research purposes (any and all results are removed from your identity).

What is the size of your student population? Specifically, how many degree-seeking students are at your institution?

(Enter a number without symbols—i.e., no commas, dashes, or spaces.)

1000

What is the approximate cost of the delivering the proposed service or program, on a per-student, per-year basis?

For a simple answer, you could make rough estimates based on the personnel time involved.

(Please indicate a number, without symbols—i.e. no commas, dashes, dollar signs, or spaces. Decimals are appropriate.)

1000
ROI Demonstration

What is the approximate attrition (drop-out) rate per year for the student population at your campus?

For example, if only 1% of your students leave per year, you would enter a 1. If 25.5% of your students leave each year, you would enter 25.5 below.

(Enter a number between 0 - 100 without symbols—i.e. no commas, dashes, percent signs, or spaces. Decimals are appropriate.)

5

What is your school's approximate annual tuition rate, per student, in dollars?

(Enter a number without symbols—i.e. no commas, dashes, dollar signs, or spaces. Decimals are appropriate.)

31000

Return on Investment Results!

Based on your answers, here are the estimated economic returns for the services or program:

Number of students retained, due to services/program: 27
Added tuition revenue for your institution from retained students: $1674000
Added lifetime earnings for retained students (increased societal productivity): $5400000
Total cost of implementing program/services: $1000000

Healthy Minds

https://umich.qualtrics.com/jfe/form/SV_6xN9QUSIFtgtRQh
ROI is Designed to Inform Decision-Making by Campus Leaders


RECOMMENDATIONS AND ACTIONS

Colleges and universities can take action to prioritize student mental health, even with limited resources.

1. **Assess student needs.** This can be done systematically by conducting a student survey and through listening to students more informally. Healthy Minds data show that students of color, first-generation students, LGBTQ students, international students, and low-income students face unique mental health burdens and barriers to care. Diverse student perspectives are essential to inform mental health practice and policy on campus. Assess the campus’s existing mental health services and identify gaps.

2. **Enhance the accessibility of clinical services.** Consider addressing costs, service locations, and the range and volume of available services. College and university leaders have been able to reduce fees for mental health services and embed counselors within units across campus to make clinical expertise more “local.” Additionally, leaders have considered mental health services that address poverty and food insecurity. To address volume, leaders have hired more clinical staff to serve their students.

3. **Consider opportunities to integrate mental health promotion and prevention throughout the campus system.** In addition to expanding counseling or mental health services, other investments in student mental health include suicide prevention, education and awareness programs, peer support programs, screening and linkage initiatives, technology-based services, faculty/staff training, and curriculum-based programs (e.g., coping skills courses). Several campuses have been successful through creative partnerships with stakeholders on and off campus.

4. **Finally, campus leaders can set the tone regarding mental health on campus through proactive messaging, communication, and norm setting.** Campuses provide an ideal setting to identify, prevent, and treat mental illness during a vulnerable and important life period. Understanding and addressing the mental health needs of college students helps shape healthier, happier, more educated, and productive campuses and graduates.
Main Take-Aways: Part 3

- Mental health problems strongly associated with negative academic outcomes
- Mental health is largely absent from national dialogue about college persistence
- There is a strong economic case for investing in student mental health (tuition $$)
Wrap Up
Dissemination Strategies

- Sign up for Healthy Minds listserv: https://healthymindsnetwork.org/subscribe/
- Webinar series
- Research briefs
- Data point of the month series
- Data reports
- Request access to data: https://docs.google.com/forms/d/e/1FAIpQLSfhw9EPQAnaXRoqDlfJhif-TdCUKfm0KgZQWhG0z6izTawA/viewform
- Data interface: data.healthymindsnetwork.org
Data Interface Example:
Suicidal Ideation, Variations Across Campuses

- Each bar represents an institution that has participated in HMS
- Full range is from 2%-26%, but vast majority of schools are in range of 5%-15%

https://healthymindsnetwork.org/data/
Acknowledgements

- Healthy Minds team
- Collaborators and Partners: Active Minds, Center for Collegiate Mental Health, JED Campus Program, ACHA, AICAD, Steve Fund, and many others!
- Funding for Healthy Minds work in recent years: NIMH, Blue Cross Blue Shield Foundation, Peg’s Foundation
Questions.
Comments.
Ideas.

Sarah Ketchen Lipson, PhD EdM
sklipson@bu.edu
@DrSarahLipson
@healthymindsnet
www.healthymindsnetwork.org