Mental Health and Suicide Prevention in Higher Education: 
Lessons Learned from 475,000 College Students Seeking Treatment

Ben Locke, Ph.D. 
Penn State University

MUS State-Wide Summit on Suicide Prevention
Bozeman, MT
Quick Reminders

• Moment to reflect – we are talking about people
• Suicide is a very rare event
  — 50% less common in college than general population
  — College is protective for men, primarily due to the lack of firearms (critical to maintain)
  — Challenges of improving upon a 50% reduction

• QUESTION: What can we learn from students seeking MH services about preventing suicide?
Counseling Center Perspective

• Quick Survey
• Critical part of a public health approach
• Psychological expertise
• Protective
• Partnership with students
  – Penn State 2015 Senior Class Gift
  – Don’t assume stigma
Suicide Rates in College
Per 100,000 (Schwartz 2006, 2011)

What can we learn from students in counseling centers?

CENTER FOR COLLEGIATE MENTAL HEALTH (CCMH)
What is CCMH?

• Largest practice-research network (PRN) of college student mental health in the world
• Spans more than a decade
• Unprecedented accomplishments
• Implications for research, practice, and policy
• The result of sustained, intentional, inclusive collaboration
CCMH

- Not a survey
  - Problems with surveys
- A data economy
- Mutually beneficial
- Interdependent
- Infrastructure
CCMH Membership Trend

- 2005: 36
- 2006: 103
- 2007: 125
- 2008: 131
- 2009: 140
- 2010: 150
- 2011: 171
- 2012: 190
- 2013: 241
- 2014: 284
- 2015: 310
- 2016: 350
CCAPS 2015 Manual
(CCAPS-62 and CCAPS-34)
Counseling Center Assessment of Psychological Symptoms
<table>
<thead>
<tr>
<th>Date</th>
<th>Depression</th>
<th>Generalized Anxiety</th>
<th>Social Anxiety</th>
<th>Academic Distress</th>
<th>Eating Concerns</th>
<th>Hostility</th>
<th>Alcohol Use</th>
<th>Distress Index</th>
<th>SI</th>
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<tbody>
<tr>
<td>8/11/2011</td>
<td>87</td>
<td>64</td>
<td>95</td>
<td>79</td>
<td>75</td>
<td>41</td>
<td>82</td>
<td>78</td>
<td>2</td>
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<tr>
<td>9/16/2011</td>
<td>--</td>
<td>--</td>
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<td>--</td>
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<td>--</td>
</tr>
<tr>
<td>9/23/2011</td>
<td>93</td>
<td>64</td>
<td>92</td>
<td>79</td>
<td>84</td>
<td>32</td>
<td>65</td>
<td>81</td>
<td>2</td>
</tr>
<tr>
<td>9/30/2011</td>
<td>93</td>
<td>64</td>
<td>92</td>
<td>66</td>
<td>84</td>
<td>49</td>
<td>47</td>
<td>78</td>
<td>2</td>
</tr>
<tr>
<td>10/5/2011</td>
<td>93</td>
<td>41</td>
<td>95</td>
<td>59</td>
<td>84</td>
<td>41</td>
<td>57</td>
<td>69</td>
<td>2</td>
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<tr>
<td>10/7/2011</td>
<td>98</td>
<td>58</td>
<td>92</td>
<td>79</td>
<td>84</td>
<td>57</td>
<td>47</td>
<td>84</td>
<td>2</td>
</tr>
<tr>
<td>10/21/2011</td>
<td>87</td>
<td>30</td>
<td>95</td>
<td>44</td>
<td>84</td>
<td>23</td>
<td>47</td>
<td>57</td>
<td>1</td>
</tr>
<tr>
<td>10/28/2011</td>
<td>93</td>
<td>41</td>
<td>92</td>
<td>59</td>
<td>84</td>
<td>23</td>
<td>47</td>
<td>67</td>
<td>2</td>
</tr>
</tbody>
</table>
2015 CCAPS Availability

- Paid CCMH members
- Titanium Schedule: July 1, 2015
- CCAPS-Web: July 1, 2015
- CCAPS-EMR: Medicat, Point and Click, Pyramed anticipated January 2016
  - SDS Update
- Online training webinars
Giving data back 😊

CCMH DATA NAVIGATOR
Data Navigator

• Built during summer 2015
• Goal: actionable, accessible data
• Aggregate & Local Data by year
• Peer comparisons
• Demographic slicing
• Created in partnership with Healthy Minds
• Ongoing development
### My Institutional Data

<table>
<thead>
<tr>
<th>Data Year</th>
<th># Students</th>
<th>Generate Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pennsylvania State University, The (2013)</td>
<td>1,959</td>
<td><img src="#" alt="View Graph" /></td>
</tr>
<tr>
<td>Outcome: Prior Counseling (lifetime prevalence)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample Breakdown: All Students</td>
<td></td>
<td></td>
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</tbody>
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</tr>
</tbody>
</table>

### Aggregate Data

<table>
<thead>
<tr>
<th>Data Year</th>
<th># Students</th>
<th>Generate Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Years Combined (2012-2013)</td>
<td>189,265</td>
<td><img src="#" alt="View Graph" /></td>
</tr>
<tr>
<td>Outcome: Prior Counseling (lifetime prevalence)</td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>Data Year</th>
<th># Students</th>
<th>Generate Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>97,163</td>
<td><img src="#" alt="View Graph" /></td>
</tr>
<tr>
<td>Outcome: Prior Counseling (lifetime prevalence)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample Breakdown: All Students</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outcome by Demographic

Pennsylvania State University, The (2013)

"I have thoughts of ending my life" (in the last two weeks)

<table>
<thead>
<tr>
<th>Sexual Orientation</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>H (Heterosexual)</td>
<td>30%</td>
</tr>
<tr>
<td>L (Lesbian)</td>
<td>29%</td>
</tr>
<tr>
<td>G (Gay)</td>
<td>53%</td>
</tr>
<tr>
<td>B (Bisexual)</td>
<td>49%</td>
</tr>
<tr>
<td>Quest</td>
<td>66%</td>
</tr>
<tr>
<td>Selfld</td>
<td>52%</td>
</tr>
<tr>
<td>All</td>
<td>31%</td>
</tr>
<tr>
<td>CCMH Avg</td>
<td>35%</td>
</tr>
</tbody>
</table>

Survey respondents from Pennsylvania State University, The who reported "I have thoughts of ending my life" (in the last two weeks) grouped by sexual orientation.

Sub-group N less than 15
"I have thoughts of ending my life" (in the last two weeks)

**Outcome by Peers**

Pennsylvania State University, The (2013)

Percentage of students from all schools to date in the CCMH survey (Pennsylvania State University, The in red) who reported "I have thoughts of ending my life" (in the last two weeks) in all survey years.

- **Other institutions**: 173,165 clients among 232 institutions
- **Peer institutions**: 11,253 clients among 10 institutions
- **Pennsylvania State University, The**: 1,930 clients
- **CCMH Average**: 184,418 clients among 242 institutions
National Surveys

• 2009 – NASPA Assessment Consortium
• 2012-2013 – NASPA Assessment Consortium
• 2016 – Healthy Minds & CCMH
  – Allows for comparison between counseling center and college population
ANNUAL REPORTS
Annual Reports

2011

Center for Collegiate Mental Health (CCMH)

2012

Center for Collegiate Mental Health (CCMH)
Selected Publications

2015


2014


2013


2012


2011


2010

2015 Annual Report

- Our 7th Report
- ~140 schools
- ~101,000 clients
- ~770,000 appointments
- > 1 million lines of data
SUICIDALITY AS A PRESENTING CONCERN IN COUNSELING CENTERS
## Suicide as a presenting problem

*Check all that apply* – Top 10 -- (n=37,857)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Anxiety'</td>
<td>56.9%</td>
</tr>
<tr>
<td>'Stress'</td>
<td>46.6%</td>
</tr>
<tr>
<td>'Depression'</td>
<td>45.9%</td>
</tr>
<tr>
<td>'Family'</td>
<td>31.6%</td>
</tr>
<tr>
<td>'Relationship problem (specific)'</td>
<td>29.1%</td>
</tr>
<tr>
<td>'Academic performance'</td>
<td>28.0%</td>
</tr>
<tr>
<td>'Interpersonal functioning'</td>
<td>23.9%</td>
</tr>
<tr>
<td>'Self-esteem/confidence'</td>
<td>22.8%</td>
</tr>
<tr>
<td>'Sleep'</td>
<td>15.4%</td>
</tr>
<tr>
<td>'Adjustment to new environment'</td>
<td>14.0%</td>
</tr>
</tbody>
</table>
CLICC 2015
Top Concern-The Rest

#19 'Obsessions or compulsions'

- 'Social isolation'
- 'Eating/body image'
- 'Mood instability'
- 'Grief/loss'
- 'Trauma'
- 'Alcohol'
- 'Career'
- 'Identity development'
- 'Suicidality'
- 'Attention difficulties'
- 'Perfectionism'
- 'Anger management'
- 'Sexual abuse/assault (victim)'
- 'Health/medical'
- 'Drugs'
- 'Self-injurious thoughts or behaviors'
- 'Financial'
- 'Harassment/emotional abuse (victim)'
- 'Obsessions or compulsions'
- 'Other'
- 'Physical abuse/assault (victim)'
- 'Legal/judicial/conduct'
- 'Racial, ethnic, or cultural concerns'
- 'Sexual orientation'
- 'Sexual concern'
- 'Violent thoughts or behaviors towards others'
- 'Religion/spirituality'
- 'Gender identity'
- 'Discrimination'
- 'Addiction (not drugs or alcohol)'
- 'Psychotic thoughts or behaviors'
- 'Pregnancy related'
- 'None'
- 'Stalking (victim)'
### Suicide as TOP presenting problem

**[Top Concern] – Top 10 -- (n=37,857)**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Anxiety'</td>
<td>20.1%</td>
</tr>
<tr>
<td>'Depression'</td>
<td>15.8%</td>
</tr>
<tr>
<td>'Relationship problem (specific)'</td>
<td>9.4%</td>
</tr>
<tr>
<td>'Stress'</td>
<td>5.9%</td>
</tr>
<tr>
<td>'Family'</td>
<td>4.5%</td>
</tr>
<tr>
<td>'Academic performance'</td>
<td>3.9%</td>
</tr>
<tr>
<td>'Interpersonal functioning'</td>
<td>3.8%</td>
</tr>
<tr>
<td>'Grief/loss'</td>
<td>3.6%</td>
</tr>
<tr>
<td>'Mood instability'</td>
<td>2.6%</td>
</tr>
<tr>
<td>'Adjustment to new environment'</td>
<td>2.6%</td>
</tr>
</tbody>
</table>
'Self-esteem/confidence' 2.5%
'Eating/body image' 2.1%
'Alcohol' 2.0%
'Other' 2.0%
'Trauma' 1.9%
'Suicidality' 1.8%
'Sexual abuse/assault (victim)' 1.7%
'Identity development' 1.4%
'Attention difficulties' 1.3%
'Career' 1.3%
'Anger management' 1.1%
'Legal/judicial/conduct' 1.0%
'Drugs' 0.9%
'Health/medical' 0.8%
'Obsessions or compulsions' 0.7%
'Social isolation' 0.7%
'Self-injurious thoughts or behaviors' 0.7%
'Perfectionism' 0.5%
'Harassment/emotional abuse (victim)' 0.4%
'Sleep' 0.4%
'Sexual orientation' 0.3%
'Physical abuse/assault (victim)' 0.3%
'None' 0.3%
'Sexual concern' 0.2%
'Gender identity' 0.2%
'Financial' 0.2%
'Psychotic thoughts or behaviors' 0.2%
'Addiction (not drugs or alcohol)' 0.2%
'Pregnancy related' 0.1%
'Violent thoughts or behaviors towards others' 0.1%
'Racial, ethnic, or cultural concerns' 0.1%
'Religion/spirituality' 0.1%
'Stalking (victim)' 0.0%
'Discrimination' 0.0%

CLICC 2015
Top Concern-The Rest

#16
#1) 2015 Member Survey (2009-2014): Institutional vs. Counseling Center Growth
Take Home Points

• Demand for mental health services is dramatically outpacing institutional growth
• Historical utilization patterns cannot be used to inform future funding decisions
• As a result, average US counseling centers are overwhelmed
• Why? Let’s dig a little deeper...
#2) Stable Trends

Prior Counseling:
- 2011: 45.0%
- 2012: 48.0%
- 2013: 48.0%
- 2014: 48.0%
- 2015: 48.8%

Prior Med Use:
- 2011: 30.0%
- 2012: 32.0%
- 2013: 34.0%
- 2014: 32.6%
- 2015: 33.1%

Prior Hospitalization:
- 2011: 7.0%
- 2012: 8.0%
- 2013: 10.0%
- 2014: 10.2%
- 2015: 10.2%
#3) Decreasing/Flat Trends

- D&A Treatment
  - 2011: 4.8%
  - 2012: 4.6%
  - 2013: 4.4%
  - 2014: 4.2%
  - 2015: 3.9%

- Harassment
  - 2011: 36.7%
  - 2012: 35.5%
  - 2013: 33.3%
  - 2014: 32.8%
  - 2015: 33.3%

- Unwanted sexual contact
  - 2011: 21.0%
  - 2012: 21.0%
  - 2013: 19.1%
  - 2014: 18.9%
  - 2015: 20.0%
#3 Self-Reported Distress (flat)
#4) Increasing Distress

Take Home Points

• Mental health is not “getting worse” across the board
  – Many indicators are flat over 5 years
  – Implication?

• Self-reported anxiety and distress have increased slightly over 5 years

• Let’s dig a little deeper...
“Threat to self” trends

WHAT IS CHANGING?
#5) Self Injury

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-suicidal self injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>21.8%</td>
</tr>
<tr>
<td>2012</td>
<td>22.5%</td>
</tr>
<tr>
<td>2013</td>
<td>23.2%</td>
</tr>
<tr>
<td>2014</td>
<td>23.8%</td>
</tr>
<tr>
<td>2015</td>
<td>25.0%</td>
</tr>
</tbody>
</table>
#6) Serious Suicidal Ideation

<table>
<thead>
<tr>
<th>Year</th>
<th>% Seriously Considered Attempting Suicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>23.8%</td>
</tr>
<tr>
<td>2012</td>
<td>25.5%</td>
</tr>
<tr>
<td>2013</td>
<td>30.0%</td>
</tr>
<tr>
<td>2014</td>
<td>30.9%</td>
</tr>
<tr>
<td>2015</td>
<td>32.9%</td>
</tr>
</tbody>
</table>
#7) Serious Suicidal Ideation “in the last month”

- 2012: 7.2%
- 2013: 7.8%
- 2014: 8.3%
#8) Attempts

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempted Suicide</td>
<td>7.9%</td>
<td>8.0%</td>
<td>9.0%</td>
<td>8.9%</td>
<td>9.5%</td>
</tr>
</tbody>
</table>

**Graph:**
- 2011: 7.9%
- 2012: 8.0%
- 2013: 9.0%
- 2014: 8.9%
- 2015: 9.5%
#9) Threat-to-Self & Service Utilization

<table>
<thead>
<tr>
<th>Condition</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Harm</td>
<td>7.9</td>
<td>9.8</td>
</tr>
<tr>
<td>Suicidal Ideation</td>
<td>7.7</td>
<td>9.9</td>
</tr>
<tr>
<td>Self-Harm &amp; Suicidal Ideation</td>
<td>7.5</td>
<td>9.7</td>
</tr>
<tr>
<td>Suicide Attempt</td>
<td>8.1</td>
<td>10.3</td>
</tr>
</tbody>
</table>

No: 7.9, 7.7, 7.5, 8.1, 10.3
Yes: 9.8, 9.9, 9.7, 10.3
#10) Counseling Center

Resource Utilization (per year)

- One (1) is the most common number of appointments
  - Psychotherapy?
- Clients averaged 5.86 appointments
  - Range: 1-117
- 20% of clients accounted for over 50% of all appointments
Take Home Points

• Demand for service is growing dramatically
• Increase in “threat-to-self” characteristics
  – 38% relative increase in serious suicidal ideation
• Implications?
  – Students representing risk use 30% more services.
  – Difficult for students to get treatment
  – Crisis response vs. treatment
Increase in Demand + Increase in Threat to Self?

WHY?
Why? Popular theories

• Lack of resilience, lack of coping, helicopter parents, early treatment, social media, etc.
• ... do NOT account for a dramatic increase in demand AND a monotonic 5-year/38% relative increase in suicidality.
  – Conflated concepts (i.e., growth in demand is not the same as increasing prevalence/severity)
  – Blame the victim...
Why? If you build it...

- $480 million invested in suicide prevention impacting college students, $63 million specifically in college. Goals:
  - Prevent suicide, reduce stigma, increase help seeking
  - Gatekeeper training (students, faculty, staff)
- Observed CCMH trends are the desired outcomes
- Fundamental flaw in a decade of public health and community interventions
  - no one planned for clinical services
Why invest in mental health treatment on campus?

IDENTIFY AND REFER....
TO THE COUNSELING CENTER
GLSMA invested $60 million in higher education to ...

- Identify students at risk
- Refer them for treatment
- Prevent suicide

- Where are students-at-risk referred to?
  - Counseling centers

- Why?
Counseling Centers Prevent Suicide

• Rate of suicide in college is roughly ½ that of the general population
• Counseling center clients are 18x more at risk of suicide than non-clients, but...
  – Rate of suicide for counseling center clients (current or former) is only 3x that of non-clients
• 75% of completed suicides are not receiving treatment in counseling centers
  – Question of interpretation

Counseling Centers are Effective

• Counseling center treatment is equally effective as randomized clinical trials (RCT) across major mental health domains including depression and anxiety

McAleavey, A. A., Youn, S., Xiao, H., & Castonguay, L. G. (2013, October). Evaluating routine practice and evaluating the methods of evaluation: How effective are routine practices for different symptom types, and what can different methods tell us? Paper presented as part of a panel at the conference of the North American Society for Psychotherapy Research (NASPR), Memphis, TN.
Counseling Centers are Cost-Effective

Healthy Minds at the University of Michigan:
• students who are “depressed at baseline... associated with a two-fold increase” in drop out w/o graduating.
• Treating 500 depressed students:
  – Cost for services (meds/therapy): $500,000/year
  – Yield $1 million in add’l tuition revenue (20k/year)

Treatment Reduces Future Problems

• Who relapses after treatment for depression? (Thase et al., 1992)
  – 9% of complete responders
  – 52% of partial responders

• Each new relapse predicts even higher rates of subsequent relapse. (LeMoult, Castonguay, Joormann, McAleavey, 2013)
Counseling Centers Support Student Outcomes

• 50% of the college student population report difficulty with academics stemming from personal concerns (ACHA, 2012)

• Students who have contact with counseling centers are more likely to remain enrolled
Counseling Centers are Critical to Campus Stakeholders

- **Critical role** in coordinating on-campus treatment with residence life, conduct, behavioral threat teams, Title IX services, faculty, staff, students, etc.
- 40-50% of students referred out don’t go
- Full range of services (treatment, outreach, consultation, trauma response, treatment, supportive services, etc.)
What 475,000 Student Have to Say about Suicide Prevention

• Recognize consequences of our success
• Recognize the critical role of counseling centers
• Address mental-health supply/demand problem
  – Long-term, campus-based planning
  – Link service levels AND funding to actual demand
    • Large increases are likely to be necessary
  – Be creative and forward thinking
• Strive for parity with health
  – Cancer screenings, meningitis vaccinations, etc.
  – Doctors do not prescribe incomplete treatments, neither should we
Thank you!

Ben Locke, Ph.D.
Penn State University

Web: ccmh.psu.edu
Email: ccmh@psu.edu
Phone: 814-863-0395
#9) Risk to others

- Considered seriously injuring another person:
  - 2011: 7.8%
  - 2012: 7.9%
  - 2013: 9.1%
  - 2014: 10.8%
  - 2015: 10.8%

- Caused injury:
  - 2011: 2.4%
  - 2012: 2.2%
  - 2013: 3.4%
  - 2014: 3.3%
  - 2015: 3.1%
Suicide vs. Meningitis

• Death from suicide is 100x more common (2002)
• Cost to vaccinate for meningitis for just first-year students on campus = $100 million
• Equivalent investment to prevent suicide? – $10 Billion

College Men

• Suicide rate is $\frac{1}{2}$ that of gen population
• Are 5x more likely than college women
  – College women are the same as gen population
• Use firearms 5x less than gen population men

• College is protective for men only, primarily due to lack of guns and campus environment
What we already know

• ³⁄₄ of completed suicides in college have no contact with counseling center
• Prohibition on fire-arms may have cut the rate by 50% already
• College is protective for men
Recognizing the challenge

- Suicide rate in college is already very, very low
- 100% prevention requires reduction in civil liberties
- More than 100 million has already been spent
Trends - Reminder

• Demand for mental health services is dramatically outpacing institutional growth
• Key increasing trend is regarding “threat to self” behaviors
• Why?