Suicide Curriculum in Medical Education

Sarah Allexan
4th year medical student
University of Colorado
No conflicts of interest to disclose
Overview

• Suicide
  – Physicians
  – Healthcare Access

• Medical Education
  – General
  – University of Colorado

• My research
• Future research
Suicide is Prevalent

- 10th leading cause of death in U.S.
- 42,773 deaths/year (2014)
- Colorado = 7th highest suicide rate nationwide
- 2nd leading cause of death ages 10 - 34
- > motor vehicle, homicide, diabetes, breast cancer, flu, or pneumonia fatalities for all age groups
Suicide on the Rise

• Only cause of death increasing in 21\textsuperscript{st} century
  – 10.4 \rightarrow 12.9 deaths per 100,000 persons/year (2001-2014)

• 2014 = highest rate in Colorado’s history

• African American child suicide doubled
Physician Suicide

• An entire medical school worth of physicians die by suicide each year
• Doctors 2x more likely to kill themselves
  – female physicians 4x more likely
• 1 in 10 fourth-year medical students & interns reported suicidal thoughts in the previous 2 weeks
Healthcare Access

- 45% of victims contact with Dr. within 1 month of suicide

- Physicians
  - unaware of prior attempts & failed to diagnose depression in majority of patients despite depressive symptoms (1975)
  - 23% either frequently or always screened adolescent patients for suicide risk factors (1995)
  - Physicians have insufficient didactic and clinical experience in suicide prevention.
The Structure of Medical Education

- College – 4 years
- Medical School – 4 years
  - Preclinical – 2 years
  - Clinical – 2 years
- Residency (M.D./D.O) – 3-5 years
  - Internship 1 year
Medical Education

• Quiz: What percentage of medical schools’ curricula cover suicide?
  – 10%
  – 15%
  – 25%
  – 50%
Suicide Curricula in Medical Education

- Lack of training
  - 15% of med school curricula cover suicide
  - <5 hrs of injury prevention/control
  - Compare to heart disease & cancer

- Students don’t identify as important & preventable
Suicide Education at CU

- 1 lecture on suicide (1st year)
- Psych small group interviews
- 4-week Psychiatric Care clerkship
- Optional psychiatric electives
- Gun-related violence lecture
- NEW! 1/2 day violence lectures
Experiential Learning
Doctors & Suicide Treatment

• Dr.
  ↑ training →
  ↑ self-perceived competency to treat suicidality → ↑ willingness to treat suicidal patients

• Med Student
  suicide prevention education → ↑ self-eval of skills-based suicide prevention abilities
Quality

- \( \uparrow \) clinical experience
  - improved knowledge
  - more negative attitudes toward informal help-seeking
  - Emotional desensitization
- \( \uparrow \) mental health literacy
- \( \downarrow \) stigmatizing attitudes
- Limit normalization of suicide
Dr. Beliefs/Perceptions

• Skeptical or ignorant about preventability of suicide
• <50% E.D. nurses & Drs. believe suicides are preventable
  – 90-93% of survivors do not die by suicide
What do other curricula look like?

- Standardized patient
  - Psychiatrist + Communication expert
  - Comfort assessing and managing suicidal patients
- Interactive computer-based module
- Cases
- Video vignettes
Why Study Suicide Curricula?

• Personal loss

• Experience with curriculum

• Speaking with colleagues
Methods

• Surveyed 665 CU School of Medicine (CUSOM) students

• 328 (49%) completed survey
  – Didactic & clinical exposure
  – Training tools
  – comfort
  – satisfaction
  – future responsibility
  – exclusion from patient care.
Key Outcome Measures

• % of students who
  – reported receiving suicide education
  – Reported being excluded from care of suicidal patients
  – received training in a suicide assessment tool
  – believe that suicide assessment will be part of their job as a physician

• Modifiable factors in the curriculum
Student Satisfaction

- 67% of 4\textsuperscript{th} years NOT satisfied
What is Correlated with Satisfaction?

• + Medium Effect
  – Preclinical Teaching
  – Preclinical Experiential Learning
    • Effect remains in year 4
  – Clerkship Teaching
  – Clerkship Clinical Exposure

• + Large Effect
  – Comfort
Suicide Assessment: Increasing Comfort

- Experiential learning → Comfort
What Accounts for Comfort?

• All variables showed a medium + relationship
  – Preclinical teaching
  – Preclinical experiential
  – Clerkship teaching
  – Clerkship patient experience
  – Years Experience
  – Suicide Assessment Tool (?)

• 4th years
  – Clerkship patient experience
  – All become small + relationship
Gender & Comfort

- Female physicians & medical students had lower confidence in assessing for suicide (Graham)
- Not at University of Colorado
Are They Getting Any Teaching About Suicide?

• > 90% report teaching in 1st & 2nd year
  – 2-3 instances
  – End of year 1
• 6% NO teaching
• Teaching more consistent than experiential
  – Experiential is variable
    • 0-3 instances
• 16% of 1st years 1-3 episodes
Preclinical: Teaching & Experiences

![Bar chart showing the percentage of students with teaching and experiential experiences in medical school years 1 to 4. The chart includes two bars: one for teaching (TEACHING) and one for experiential (EXPERIENTIAL) episodes. The percentage increases from year 1 to year 4 for both categories.](chart.png)
Variable Preclinical Experiential Learning

Experiential Learning Episodes re: Suicide

<table>
<thead>
<tr>
<th>Medical School Year</th>
<th>0</th>
<th>1</th>
<th>2 to 3</th>
<th>4+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>50%</td>
<td>25%</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td>50%</td>
<td>35%</td>
<td>50%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Clerkship Teaching: Quantity

- 0 episodes (19%)
- 1 episode (34%)
- 2 to 3 episodes (28%)
- 4+ episodes (19%)
Clerkship Teaching

On Which Clerkships did 4th Year Students receive Teaching?

- Psychiatry: 69%
- No Teaching: 13%
- Emergency: 7%
- Foundations of Doctoring: 5%
- Rural Community Care: 2%
- Adult Ambulatory Care: 2%
- Pediatrics: 3%
Clerkship Clinical Exposure

Where did fourth year students get clinical exposure to suicide during clerkship?

- Psychiatry: 70%
- Emergency: 13%
- Foundations of Doctoring: 6%
- Adult Ambulatory Care: 4%
- Rural Community Care: 4%
- Pediatrics: 1%
- No Clinical Exposure: 1%
Where are 3rd year students getting clinical exposure to suicide?
Training in a Suicide Assessment Tool

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use "☐" to indicate your answer)

1. Little interest or pleasure in doing things  0 1 2 3

2. Feeling down, depressed, or hopeless  0 1 2 3

3. Trouble falling or staying asleep, or sleeping too much  0 1 2 3

4. Feeling tired or having little energy  0 1 2 3

5. Poor appetite or overeating  0 1 2 3

6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down  0 1 2 3

7. Trouble concentrating on things, such as reading a newspaper or watching television  0 1 2 3

8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual  0 1 2 3

9. Thoughts that you would be better off dead or of hurting yourself in some way  0 1 2 3

FOR OFFICE USE: ☐ ☐ ☐ ☐ ☐  ☐ ☐ ☐ ☐ ☐ ☐ ☐
Total Score: ______

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all ☐  Somewhat difficult ☐  Very difficult ☐  Extremely difficult ☐
Suicide Assessment Tool

Training in the use of a suicide assessment tool

% of students

Year in medical school

Yes
No
Responsibility

• 2% think suicide assessment not part of their job as Dr.

• Based on specialty choice
  – anesthesiology, pathology & surgical specialties

• (S)he did not “see [the perioperative setting] as the most appropriate time to assess [suicide].”

• Psychiatric consultation
Student Exclusion from Patient Care

- 17 students (5%)
- 3 main reasons
  - Attending/Staff preference
  - Patient discomfort/privacy
  - Student safety
- 35% occurred in Pediatrics
<table>
<thead>
<tr>
<th>THEME (n)</th>
<th>REPRESENTATIVE STUDENT QUOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTENDING PREFERENCE (13)</td>
<td>“In every rotation except psych[iatry] I have been explicitly told that I cannot care for patients with psychiatric problems, especially suicide.”</td>
</tr>
<tr>
<td>OR CULTURAL PREVENTION</td>
<td></td>
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<tr>
<td>PATIENT DISCOMFORT/PRIVACY (4)</td>
<td>“The patient specifically stated that she would only be comfortable talking about it with the doctor privately.”</td>
</tr>
<tr>
<td>STUDENT SAFETY (1)</td>
<td>“Patient reportedly had also attacked staff during previous visit.”</td>
</tr>
</tbody>
</table>
Summary of Results

• 2/3 of 4\textsuperscript{th} years not satisfied
• 2\% students believed themselves exempt from future suicide assessment
• 5\% were excluded from suicidal patient care.
• 30\% had no training in suicide/depression screening tools.
• 16\% of 1st year students taught 1-3 times
Limitations

• Recall/Memory
  – Changing responses
• 2nd year students
  – preclinical teaching
• 3rd year clerkship
  – More diverse.
• Did not allow selection of multiple clerkships
Satisfaction

• ↑Quantity → ↑ educational satisfaction
• Quality also likely contributes
• Should be emphasized more throughout med school. Get large share in year 3.
Comfort in Assessing

- Clerkship: Clinical Exposure
- Teaching not important ?!?  
  - Not working?
  - Quality
- Suicide assessment tool  
  - Necessary but not sufficient
- Year  
  - Demand characteristics
- Very comfortable = constant
Preclinical Didactic & Experiential Learning

• Variable experiential learning, yet many (4+) clinical experiences
  – Need better experiential preparation
Responsibility

• 98% take responsibility as Dr.
• 2% think it won’t be their job
  – procedural specialties complete at least 1-3 years training as a primary physician
  – No required psychiatric training in residency (Internal medicine, Pediatrics, and Surgery, etc.)
Exclusion

• Attending preference or norms
• Pediatric suicide care
  – low exposure (1-4%) but high exclusion (35%)
  – Pediatricians need more preparation
• Age 10-34: 2\textsuperscript{nd} leading cause of death
• Needs further investigation
Conclusions

• Gaps exist
• Baseline
• Highlights areas for improvement
• Nationally similar minimal injury prevention & suicide curricula
• Enhance suicide teaching
  • Reframe suicide as a disease process
    • incidence, risk factors, protective factors, diagnosis, assessment & management
    • Teach SAFE-T suicide assessment
Curricular Implementation

- Enhance Experiential Learning
  - Standardized Patient
  - Communications
  - Vignettes/Cases
  - Computer-based module
- Increase accountability
- Humanizing factors too
Future Research directions

- Assess student knowledge, attitudes & perceptions regarding suicide
- Student focus groups on suicide curriculum improvements
- Physician interviews about student exclusion from suicidal patient encounters
Recommendations

• Make Psychiatry curriculum more visible
  – Medical Education graphic
  – Essentials Core courses
  – Publish Course Goals to website
  – List Representative on the Essentials Core Leadership web page
Prevent Physician Suicide through Awareness

- Screen AFSP’s documentary “Struggling in Silence”
- 15 min or 1 hour
- True story of a medical student’s journey
Acknowledgements

• Deb Seymour, PsyD
  – Research mentor
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  – Mentor
  – shared passion for suicide prevention
• Steve & Suzanne Allexan
• Caleb Kline,
  – Survey feedback & emotional support
• I dedicate this research to my brother, Travis Allexan.
References


References (Cont.)


Time for discussion & questions
“The distinction between diseases of "brain" and "mind," between "neurological" problems and "psychological" or "psychiatric" ones, is an unfortunate cultural inheritance that permeates society and medicine. It reflects a basic ignorance of the relation between brain and mind. Diseases of the brain are seen as tragedies visited on people who cannot be blamed for their condition, while diseases of the mind, especially those that affect conduct and emotion, are seen as social inconveniences for which sufferers have much to answer. Individuals are to be blamed for their character flaws, defective emotional modulation, and so on; lack of willpower is supposed to be the primary problem.”

— Antonio Damasio
Statistical Analysis

• Descriptive statistics (frequencies & %)
• We computed correlations using Pearson correlation coefficient
• Theme analysis of open text comments