Disclosures

Stipend from the Tucson Osteopathic Medical Foundation/Southwestern Conference on Medicine
Stipend from Arizona Health Net Quality Improvement Committee
Learning Objectives

1. Review epidemiology of depression, suicide, and bullying
2. Review most recent literature on bullying
3. Understand protective factors for suicide prevention, including those we can impact
2015 Suicide CDC Data Rates

- **5491 youth ages 15-24** (12% of the 44K suicides in US)
- 2nd leading cause of death for people ages 10-34 in 2016
- **Ages 15-24**: 12.3/100,000 persons (All cause death rate is 70/100,000)
  - Males 19.1/100,000 (4X higher)
  - Females 5.3/100,000
- **Ages 5-14**: 1/100,000 youth (All cause death rate is 13/100,000)
- 18% of high school students reported having seriously considered suicide during the previous 12 months
- 80% of student suicides: **NO prior treatment**
Rates have increased in every group over recent years except Hispanic youth where rates have decreased.
Depression and Suicide - special populations

- Sexual and Gender Minority (SGM) Youth (gay, lesbian, bisexual or any same sex contact)

- In 2015 questions were added about sexual identity to the National Youth Risk Behavior Survey (YRBS), 8% endorsed being gay, lesbian or bisexual

Nationwide suicide attempts at least once in past 12 months

- No sexual contact
- Heterosexual students
- Opposite sex only
- Not sure
- Any same sex contact
- Sexual minority students
Suicidal behavior trends - Burstein et al 2019

- 1.1 million U.S. ER visits for suicidal thoughts and attempts in 2015, children 5-18
- 43% were 5-10yo
- 3.5% of all ED visits
### TABLE 26. Percentage of high school students who seriously considered attempting suicide* and who made a plan about how they would attempt suicide,* by sex — selected U.S. sites, Youth Risk Behavior Survey, 2015

<table>
<thead>
<tr>
<th>Site</th>
<th>Seriously considered attempting suicide</th>
<th>Made a suicide plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female % (CI)</td>
<td>Male % (CI)</td>
</tr>
<tr>
<td>Alabama</td>
<td>23.1 (18.6–28.2)</td>
<td>11.8 (9.5–14.6)</td>
</tr>
<tr>
<td>Alaska</td>
<td>23.3 (19.6–27.5)</td>
<td>17.0 (14.1–20.4)</td>
</tr>
<tr>
<td>Arizona</td>
<td>23.5 (20.2–27.2)</td>
<td>13.2 (10.5–16.4)</td>
</tr>
<tr>
<td>Arkansas</td>
<td>23.2 (20.0–26.8)</td>
<td>14.4 (12.3–16.6)</td>
</tr>
</tbody>
</table>
### TABLE 28. Percentage of high school students who attempted suicide* † and whose suicide attempt resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse, ‡ by sex — selected U.S. sites, Youth Risk Behavior Survey, 2015

<table>
<thead>
<tr>
<th>Site</th>
<th>Attempted suicide</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Total</td>
<td>Female</td>
<td>Male</td>
<td>Total</td>
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<td>CI</td>
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<tr>
<td>State surveys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>13.0 (10.3–16.4)</td>
<td>8.7 (6.6–11.4)</td>
<td>11.2 (9.4–13.3)</td>
<td>4.8 (3.6–6.5)</td>
<td>3.3 (2.0–5.4)</td>
<td>4.3 (3.3–5.6)</td>
<td></td>
</tr>
<tr>
<td>Alaska</td>
<td>11.0 (8.7–14.0)</td>
<td>10.4 (8.2–13.1)</td>
<td>10.7 (8.9–12.8)</td>
<td>4.0 (2.7–6.1)</td>
<td>3.0 (1.9–4.7)</td>
<td>3.5 (2.6–4.7)</td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>12.6 (9.5–16.6)</td>
<td>6.2 (4.5–8.6)</td>
<td>9.6 (7.9–11.5)</td>
<td>3.7 (2.6–5.5)</td>
<td>1.5 (0.6–3.6)</td>
<td>2.7 (2.0–3.6)</td>
<td></td>
</tr>
</tbody>
</table>
YRBS 2015 CDC - 7% of males had carried a gun in AZ

<table>
<thead>
<tr>
<th>Site</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>State surveys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>10.2 % (7.1–14.3)</td>
<td>34.6 % (29.7–39.7)</td>
<td>22.5 % (18.7–26.7)</td>
<td>3.4 % (2.0–5.7)</td>
<td>15.9 % (12.7–19.7)</td>
<td>10.0 % (8.0–12.5)</td>
</tr>
<tr>
<td>Alaska</td>
<td>__ %</td>
<td>__ %</td>
<td>__ %</td>
<td>__ %</td>
<td>__ %</td>
<td>__ %</td>
</tr>
<tr>
<td>Arizona</td>
<td>10.2 % (7.5–13.6)</td>
<td>25.5 % (22.2–29.1)</td>
<td>18.0 % (15.6–20.7)</td>
<td>2.8 % (1.7–4.4)</td>
<td>6.9 % (5.5–8.5)</td>
<td>4.9 % (4.0–6.0)</td>
</tr>
</tbody>
</table>
Percentage of Females in Grades 9 through 12 Who Thought Seriously About Attempting Suicide, Attempted Suicide, and Whose Suicide Attempts Required Medical Attention: by Grade, 2015

Thought seriously about suicide

9th Grade

27% Grade 9
26% Grade 10
22% Grade 11
19% Grade 12

Attempted Suicide

Grade 9: 15%
Grade 10: 13%
Grade 11: 10%
Grade 12: 7%

Suicide attempt required medical attention

Grade 9: 5%
Grade 10: 4%
Grade 11: 3%
Grade 12: 2%

CDC-Kaiser Adverse Childhood Experiences (ACE) Study (1995-1997)

- 17K people
- 54% Female
  - 75% White
  - 11% Hispanic/Latino
  - 46% were 60 and over
  - 25% had some college
  - 40% had college degree
- 2/3 Experienced at least one ACE
- more than 20% reported 3 or more ACES
- Found a graded dose-response relationship
- Nadine Burke Harris’ Ted Talk

- CDC presentation graphics
ACES (over first 18 years of life)

### ABUSE

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMOTIONAL</td>
<td>11%</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td>28%</td>
</tr>
<tr>
<td>SEXUAL</td>
<td>21%</td>
</tr>
</tbody>
</table>

### HOUSEHOLD CHALLENGES

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTHER TREATED VIOLENTLY</td>
<td>13%</td>
</tr>
<tr>
<td>SUBSTANCE ABUSE</td>
<td>27%</td>
</tr>
<tr>
<td>MENTAL ILLNESS</td>
<td>19%</td>
</tr>
<tr>
<td>SEPARATION/DIVORCE</td>
<td>23%</td>
</tr>
<tr>
<td>INCARCERATED HOUSEHOLD MEMBER</td>
<td>5%</td>
</tr>
</tbody>
</table>

### NEGLECT

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMOTIONAL</td>
<td>15%</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td>10%</td>
</tr>
</tbody>
</table>
ACE Score Prevalence for CDC-Kaiser ACE Study Participants, Waves 1 and 2.

How Common are ACES?

ACE Study

- ZERO: 36%
- ONE: 26%
- TWO: 16%
- THREE: 9.5%
- FOUR OR MORE: 12.5%

# of ACES

- CDC Presentation Graphics
Early Adversity has Lasting Impacts

Adverse Childhood Experiences

- Traumatic Brain Injury
- Injuries
- Fractures
- Burns
- Anxiety
- Suicide
- PTSD
- Unintended pregnancy
- Pregnancy complications
- Fetal death
- HIV
- STDs
- Chronic Disease
- Cancer
- Diabetes
- Alcohol & Drug Abuse
- Unsafe Sex
- Education
- Occupation
- Income
Bullying

Definition
Any unwanted aggressive behavior(s) by another youth or group of youths who are not siblings or current dating partners that involves an observed or perceived power imbalance and is repeated multiple times or is highly likely to be repeated. Bullying may inflict harm or distress on the targeted youth including physical, psychological, social or education harm.

- CDC 2014 (Gladden et al)

Cyberbullying - willful and repeated harm inflicted through computers, cell phones, and other electronic devices

- Hinduja & Patchin 2015
Bullying epidemiology

- Rates in larger studies showing 15-23%
- Peaks in middle school, decreases through high school
- Cyberbullying can peak in later middle school years and rise into high school
TABLE 17. Percentage of high school students who were electronically bullied,*† and who were bullied on school property,† by sex, race/ethnicity, and grade — United States, Youth Risk Behavior Survey, 2015

<table>
<thead>
<tr>
<th>Category</th>
<th>Electronically bullied</th>
<th></th>
<th>Bullied on school property</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>%</td>
<td>Male</td>
<td>%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>11.9</td>
<td>(9.1–15.3)</td>
<td>5.6</td>
<td>(3.8–8.2)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>16.7</td>
<td>(14.0–19.9)</td>
<td>8.1</td>
<td>(6.4–10.3)</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>22.7</td>
<td>(19.8–26.0)</td>
<td>11.0</td>
<td>(8.1–14.7)</td>
</tr>
<tr>
<td>10</td>
<td>23.2</td>
<td>(20.6–25.9)</td>
<td>9.9</td>
<td>(7.9–12.4)</td>
</tr>
<tr>
<td>11</td>
<td>21.4</td>
<td>(18.7–24.4)</td>
<td>8.4</td>
<td>(6.3–11.0)</td>
</tr>
<tr>
<td>12</td>
<td>19.5</td>
<td>(16.8–22.4)</td>
<td>9.2</td>
<td>(7.2–11.8)</td>
</tr>
<tr>
<td>Total</td>
<td>21.7</td>
<td>(20.1–23.4)</td>
<td>9.7</td>
<td>(8.4–11.1)</td>
</tr>
</tbody>
</table>

* Counting being bullied through e-mail, chat rooms, instant messaging, Web sites, or texting.
† During the 12 months before the survey.
§ 95% confidence interval.
¶ Non-Hispanic.
Blue Whale Challenge (BWC)

Wikipedia:

- Series of tasks assigned to players over a 50 day period
- Initially innocuous “get up at 430am”, “watch a horror movie”
- Later involve self harm
- Instructed to commit suicide on the final day
- Administrators were initially found to be children aged 12 and 14, not predatory adults
- 3 arrests of adults
- Presumed to be 4 deaths inside and 130 outside the US as result of challenge
Study on social media and suicidality – Sumner et al 2019

- Searched all public social media posts and new articles on the Blue Whale Challenge (BWC) from Jan 2013- June 2017 (4.5 years)
- 95K social media posts and articles about BWC
- Twitter (50%) Tumbler (28%) YouTube (12%)
- 53% females/ 47% males
- 28% Pro- BWC (interest, curiosity or participation)
- 52% Anti- BWC
- 19% News Articles
Social media and suicide - BWC study - Sumner et al 2019

The first media post occurred 4 months after the first US English Post

March 2014
First message in Russia

May 2016
First US post in English on 4chan

June 2017
Posts in 127 countries

December 2015
First Twitter post in Russian

September 2016
First US News Article
Momo Challenge

Wikipedia:

- People presenting themselves as a character named Momo try to convince people to contact them through their cell phone.
- Instructed to perform a succession of dangerous tasks including violent attacks, self-harm and suicide.
- Refusal to do so is met with threats.
- Messages subsequently accompanied by frightening or gory pictures.
- 2019 claimed that Momo was being inserted into seemingly innocuous YouTube and YouTube Kids videos about Peppa Pig and Fortnite.
Bullying Effects
- Wolke and Lereya 2015

<table>
<thead>
<tr>
<th>Effects in children</th>
<th>Bullies</th>
<th>Victims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicidality and self-harm behavior</td>
<td>Increased Risk</td>
<td>Increased Risk</td>
</tr>
<tr>
<td>Somatic problems</td>
<td>No relationship</td>
<td>Increased Risk</td>
</tr>
<tr>
<td>Anxiety</td>
<td>No relationship</td>
<td>Increased risk</td>
</tr>
<tr>
<td>Depression</td>
<td>Girls - no relationship</td>
<td>Increased Risk (internalizing sx)</td>
</tr>
<tr>
<td></td>
<td>Boys - Increased Risk</td>
<td></td>
</tr>
</tbody>
</table>
**Bullying Effects** - Wolke and Lereya 2015

<table>
<thead>
<tr>
<th>Effects ages 18-50</th>
<th>Bullies</th>
<th>Victims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicidality and self-harm behavior</td>
<td>No relationship</td>
<td>Increased Risk for young adult males</td>
</tr>
<tr>
<td>Somatic problems</td>
<td>No relationship</td>
<td>Increased Risk</td>
</tr>
<tr>
<td>Anxiety</td>
<td>No relationship</td>
<td>Increased risk</td>
</tr>
<tr>
<td>Depression</td>
<td>No relationship</td>
<td>Increased Risk (internalizing sx)</td>
</tr>
<tr>
<td>Antisocial PD</td>
<td>Increased Risk</td>
<td>Increased Risk</td>
</tr>
<tr>
<td>Psychosis</td>
<td>No relationship</td>
<td>Increased Risk</td>
</tr>
<tr>
<td>Substance Use</td>
<td>Increased Risk</td>
<td>Increased risk for tobacco only</td>
</tr>
<tr>
<td>Lower education and employment</td>
<td>Increased risk</td>
<td>Increased risk</td>
</tr>
<tr>
<td>Social relationship problem</td>
<td>Increased risk</td>
<td>Increased risk</td>
</tr>
<tr>
<td></td>
<td>More likely to become young mother</td>
<td>More likely to become a young parent</td>
</tr>
</tbody>
</table>
Bullying - Effects - Wolke and Lereya 2015

- Effects on health estimated to cost 1.4 million per individual
- 50% say they would rarely or never tell their parents
- 35-60% would not tell their teacher
- Fear of reprisal or shame
- Professionals RARELY ASKED about peer relationships

*WE NEED TO ASK ABOUT BULLYING*
Cyberbullying and suicide - Nikolaou 2017

- Use of the Youth Risk Behavior Survey (YRBS)
- It increases suicidal thoughts by 14.5%
- Increases suicide attempts by 8.7%
- Women affected more than men from cyberbullying in nonfatal suicides
- Men more sensitive to cyberbullying than women for fatal suicides

- 186 adults with similar levels of Major Depressive Disorder
- Medication free
- 88 were bullied prior to age 18
- Looked at brain changes in depression ± Bullying
Bullying and the brain - Graziano et al 2019

- All had:
  - Decreased volume: amygdala, anterior cingulate cortex and hippocampus
  - Reduced white matter integrity: cingulum bundle, supero-lateral medial forebrain bundle, uncinated fasciculus and superior longitudinal fasciculus

- Depression + Bullying changes in the right medial lemniscus and left posterior corona radiata compared to depression alone

- These brain areas have large functional implications for stress response, emotional expression, and sensory processing - all relevant to mood dysregulation

- More pronounced when bullying endorsed in later adolescence (ages 14-17)
Bullying and cardiovascular disease – Xu et al 2018

- 79K working men and women aged 18-65 and free of CVD in Sweden and Denmark

- Incident CVD (coronary heart disease and cerebrovascular disease) obtained from nationwide health and death registers

- 9% were bullied at work, 13% exposed to workplace violence in past year

- Being bullied at work was associated with a hazard ratio (HR) of 1.25 for CVD

- Dose-response relations were observed for both

- Conclusion: Bullying and violence are common at workplaces and those exposed are at higher risk for CVD
Bullying - good news - Waasdorp et al, (2017)

- 200K 4th - 12th graders in 109 Maryland schools across 10 years
- Improvement in 10/13 indicators
- Decrease prevalence in bullying and victimization for in person and cyberbullying
- Most recently greatest improvements in school climate and reductions in bullying
- Increase in perceptions that adults do enough to stop bullying and students’ feelings of safety and belonging at school

Change over Time

- Victimized
- Perpetrated
- Adults do enough
Cyberbullying - who gets bullied? - Navarro et al 2018

- Is cyberbullying victimization linked to fatalistic beliefs?
- Is resilience a moderator of this relationship?
- 720 adolescents in grades 7-10 in Spain

Fatalism:
- Having no power to influence the future or our own actions
- We are powerless to do anything other than what we actually do
- An attitude of resignation in the face of future or actual events

Resilience:
- Overcoming the negative effects of risk exposure
- Successfully coping with traumatic experiences
- Avoiding the negative courses associated with risks

Having been cyberbullied was positively related to fatalism with indication of a causal effect

Resilience was negatively associated with cyberbullying, victimization and fatalism
Bullying - Cultivating Resilience - Hinduja and Patchin 2017

- 1204 students ages 12-17 surveyed
- Conner-Davidson Resilience 10-item scale (CD-RISC)
- Were you (cyber)bullied in a way that affected ability to learn and feel safe at school (0-4 frequency of being bullied)
- Controlled for sex, race, age
- 70% endorsed experiencing one or more of 10 types of bullying
- Only 23% report they’d been bullied.
- Most common was spread rumors online and posted mean or hurtful comments online.
Bullying - who gets bullied - Hinduja and Patchin 2017

Bullied More

- White students
- Males twice as likely to have experienced cyberbullying

Bullied Less

- Higher resilience
- Older youth

- Age and Race not associated with cyberbullying
- Among those bullied – resilience seemed to serve as a buffer, insulating them from being disrupted at school
- Resilient youth were less likely to report that they had been bullied at school in a way that affected their ability to learn and feel safe
Bully victims and personality structure/MMPI
- Romero et al 2013

- Neurotic type psychological function
  - Poor ability to address causes of their problems
  - Tendency toward dysfunctional defense mechanisms: somatization, denial, and repression

- Marked paranoid cognition
  - Tendency to be suspicious of others
  - Tendency to blame their misfortunes on external factors

- Association found between bullying and suicidal ideation
- Noted a time related normalization of the MMPI-2 personality profile, more accentuated in victims where the aversive situation improves
- Suggesting that the altered personality is a consequence of victimization, rather than one of it’s causes
Bullying Risk Factors - Verlinden et al 2015

- Higher ADHD and ODD scores ages 3 and 5 were associated with risks of becoming a bully or bully-victim
- Studies have shown that bully-victims are the most troubled group
Bullying - Mitigating Factors - Afifi et al 2019

- 986 high school students in Beirut

- Bullying + Low religiosity → ↑ substance use

- Bullying + High religiosity → ↓ substance use
Cyberbullying - resilience

Resilient Youth

- Protective factors (Waug et al 2011; Hinduja & Patchin 2017)
  - High levels of competence
  - Resourcefulness
  - Flexibility
  - Emotion regulation skills
  - Less likely to characterize particular experience as bullying
  - May not make good targets for perpetrators because they don’t give the desired response
Cyberbullying - improving resilience - Navarro et al 2018

- Cultivate social-emotional skills to face harmful events
- Counsel to avoid attitudes of resignation in the face of future or actual events
- Focus on reducing possible sense of loss of control over negative interactions
- Decrease passive coping responses, such as problems will go away themselves
- Implement programs to help develop coping strategies and emotion regulation strategies (e.g. Incredible Years or Quest for Golden Rule and CBT)
Bullying - Cultivating Resilience - Hinduja and Patchin 2017

- What makes some youth better able to brush bullying off?
- Can the protective factor be identified, cultivated and strengthened?
- Can we train youth to be “overcomers” instead of “victims”
Bullying - Cultivating Resilience

Internal resilience
- Self esteem
- Self-control
- Self-efficacy
- Internal locus of control
  - Ahlin & Antunes 2015

External resilience
- Supportive environments
- Social supports
- Adult attachment
- Positive peer relationships
- Sense of belonging
- Baruth & Caroll, 2002)
Language in social media texts
- De Choudhury and Kiciman 2016

- Looked at how commentary on posts influences mental health outcomes identified as “risk of posting about suicidal ideation in the future”
- 80K posts by 44K users Feb to Nov 2014 (mental health subreddits MH and a prominent suicide support community on Reddit - Suicide Watch SW).
- 440 initially posted in MH and later in SW (at risk group). 62K comments by 32K users
- 440 were randomly selected from the 28K users who posted in MH only (non at risk group). 42K comments by 21K users
- Idea of judging supportiveness of comments, in a time-critical fashion, to remove unhelpful comments which may exacerbate someone’s vulnerability.
- Getting comment tokens such as “gently” “be helpful” “fight the” “instructions” significantly decreases a user’s likelihood of being in the MH to SW group in the future. (appear to relate to internal locus of control)
- Comment tokens associated with increase risk of being in the MH to SW group by 28-58% were “proud” “am sorry” “suicide” “medication” “depressed” “pain and” “hating” (seem to relate to external LOC)
- Interactive tools may be built for moderators who can
Language in social media texts
- De Choudhury and Kiciman 2016

**MH Group**

GREATER  self esteem and network support
- Expression of self esteem (31%)
- Network support (23%; belonging to group of people with similar experiences)
- Emotional support (16%)

LOWER
- Informational support (9%)
- Acknowledgements (5%)

**MH to SW group**

GREATER - acknowledgements and advice
- Acknowledgements (40%)
- Informational support (23%)

LOWER
- Instrumental (9%; willingness to help in a tangible way)
- Network support (5%)
Bullying - What to do

Talk about it with child, teacher and school counselor or school principal

Tucson Bullying - Report It Here BRIM Anti-bullying software

Discrete/anonymous reporting:


stopbullying.gov

What Kids Can Do

Get Help Now

AACAP Website

Families and Youth

Resource Centers

Bullying
Bullying - what to do

Treat Depression!

- PHQ9

- Benefits of antidepressant medication outweigh their risks to children and adolescents with major depression and anxiety disorders

- 2012 metaanalysis of complete longitudinal data for RCTs by Eli Lilly (n = 65K) depressed adolescents with fluoxetine:
  - large overall reduction in depressive symptoms
  - suicide risk rate not greater than placebo
  - no evidence of increased risk of suicidal thoughts or behavior
  - some with reduced depression continue to have SI and behavior

- National Vital Statistics: Children ages 5-14 suicide rates from 1996-1998 were lower in areas of country with higher rates of SSRI prescriptions

- 2010 FDA mandated pharmaceutical companies include suicidal patients in drug trials with depressed patients.
Treatment of Adolescent Suicide Attempters (TASA)

- NIMH supported, 5 sites, 6 mo program
-Attempted suicide in past 90 days
- Antidepressant alone, CBT alone or combination treatment
- High rates of improvement and remission across groups
- Lowered 6 month risk for suicidal events and re-attempts in all 3 groups
Treatment of Resistant Depression in Adolescents (TORDIA) study - NIMH

- 6 sites, 2000-2006, n = 334 treatment resistant adolescents with MDD

  Switch to:
  - Another SSRI
  - Venlafaxine
  - Another SSRI + CBT
  - Venlafaxine + CBT

- No difference in rate of suicidal events among treatments
- Lower rate of non-suicidal self harm in medication only group
- Medication time to suicidal event - 3 weeks
Suicide Risk Factors - Evans et al 2017

- 90% had one or more psychiatric disorders
- Aggressive Impulsive Behavior
- Hopelessness, Pessimism, Feelings of being a failure, Inability to live up to parental expectations
- Previous Suicidal Behavior - $\frac{1}{4}$ - $\frac{1}{3}$ have had a history of an attempt, increased risk of future suicidal behavior by 17X
- History of parental suicidality are parent mental illness
- Lower levels of 5HT, Higher levels of 5HT receptors
- TBI (Traumatic Brain Injury)
Suicide Risk Factors

- Exposure to suicidal behavior of family members
- Parent-child conflict - particularly among younger youth
- Lack of emotional support within the family, especially related to sexual orientation and/or nonconforming gender behavior (SGM youth with high family rejection 9x more likely to make an attempt than those with low or no rejection)
- Unrealistic parental expectations
- Abuse
- Homelessness
Risk Factors - negative life events

- Foster care studies have shown youth in foster care twice as likely to die by suicide and 4 times more likely to have attempted
- Peer related issues
- Interpersonal loss/loss of romantic relationship
- Bullying, harassment and victimization (as a victim or perpetrator) - Highest risk in youth who are both victim and perpetrator
- Legal Problems
- School problems
- Not being in school or working
- Exposure to media coverage
- Exposure to family suicidality
- Having a friend or acquaintance attempt
- Spending more than 5 hours/day on electronic devices | Teens spending more than 5 hours/day on electronic devices were 70% more likely to have suicidal thoughts or actions than those who reported one hour of use per day
Risk Factors - Access to Lethal Means

- States with high gun ownership show highest rates of attempted and completed suicide.
- Guns are estimated to be 4-5 times more prevalent in homes of youth who have died by suicide.
- Youth who die by firearm have fewer identifiable risk factors.
Means Matters: Self-Harm Fatality Rates

- **Firearms**
  - 85-90% fatal
  - 10-15% nonfatal, treated in hospital ER

- **Poison (overdose) & Sharps**
  - 1-2% fatal
  - 98% nonfatal, treated in hospital ER

Source: CDC WISQARS [http://www.cdc.gov/ncipc/wisqars/]
Risk Factors - Acute

- Perturbation - Edwin Shneidman (father of contemporary suicidology) - an unbearable/noxious mental state
- Anxiety (dysphoric arousal) - escaping uncomfortable feelings? Intent not to die?
- Insomnia
- increased impulsivity
- worsening symptoms
- admission of plan
- Preparation
- situational factors (recent loss) - intense emotional response - experienced this before?
Warning signs

- Preoccupation with death
- Intense sadness or hopelessness
- Not caring about activities that once mattered
- Withdrawal from family, friends, sports, social activities
- Substance abuse
- Sleep disturbance
- Giving away possessions
- Risky behavior
- Lack of energy
- Not thinking clearly
- Dropping grades
- Irritability
- Loss of appetite
Protective Factors - Foster psychological health and wellbeing

- Family connectedness, emotional involvement and support
  - significantly stronger than connectedness to peers or school
  - most potent among youth who had been sexually abused and SGM youth

- Perceived caring by adult relatives other than parent or other adults in the community
  - Maintain communication with children
  - Let youth talk about problem and concerns and not jump in to fix it
  - If parents suspect something isn’t right, they should ask what is wrong
Protective Factors - School

- School connectedness
- Perceived school support
- Emotional connections to friends
- Involvement in extracurricular activities
- Perceived safety at school in youth who have been sexually abused and SGM youth

- In one study presence of Gay-straight alliance, nondiscrimination and antibullying policies reduced SGM student’s risk of suicide attempt by 20%
Protective Factors - Address means

- Reduced access to lethal means
- Locking both guns and ammunition,
- Storing guns unloaded
- Storing guns and ammunition separately
- Restricting access to toxic gas and pesticides
Protective Factors - Bolster skills

- At risk students participated in interventions to strengthen
  - Decision making
  - Problem solving
  - Healthy coping
  - Social-behavioral skills

  - showed decreased depression and suicidal behavior

- Targeted interventions to
  - increased coping skills,
  - decrease self harm,
  - Decrease drug use
  - Improve healthy sexual practices
Protective Factors - lead them off the pathway

Breakup
- Talk with friends

Isolating
- Friends stop coming around
- Distance from parents
- Thinking about means, aware of gun
- Going to test out the gun
- Get rid of guns
- Separate ammo from unloaded gun

Try to predict the future
- Do a chain analysis
- Normalize feelings
- Do interventions to divert this trajectory
- Build in multiple lines of safety
- Involve family and friends
- Petition process

Agree to go to movie with friends – behavioral activation, get out there, pleasure comes later

Stay in same room with parent

Eat dinner with parent

Suicide attempt
What to do?

- Tell parents to talk about it
- Ask direct questions (Do you want to kill yourself?)
- Be thorough, compassionate and direct and normalize
- Chain analysis about thoughts feelings and events leading up to the suicidality
- Try to predict the future
- Develop interventions to divert the trajectory/divert them off the pathway to an attempt
- Ask about lethal means
- Increase direct supervision
What to do?

- PHQ-9
- Look at how they answer the question about suicidal thinking (#9). If positive:
  - Normalize the thought
  - Ask if they have a plan and find out what it is, make suggestions if they don’t offer (Foreseeability)
  - Ask if they have intent (Foreseeability)
  - Decide if need crisis evaluation at CRC or if home with supervision seems safe
  - Review handout on suicide and depression with parents
  - Document protective factors (Foreseeability)
  - Let them know you care about them and that their loss would be devastating for many around them, including you
  - “rule of 10s” how much will the situation you are in right now impact you in 10 hours, 10 days, 10 weeks, 10 months, 10 years.
Liability

- Reasonable assessment - Did you do a reasonable assessment
- Foreseeability - Given your assessment was their risk of dying imminently foreseeable? Were they future oriented, was there a hazard analysis?
- Treatment intervention - Did you take precautions, what did you change in your treatment plan to address the foreseeability which you recognize from doing reasonable assessment (precaution)
- Petition process
National Suicide Prevention Hotline: 1-800-273-TALK (8255)

Crisis Text Line: Text HOME to 741741
References


References Continued...

References continued


▶ Schoeler et al. Multi-polygenic score approach to identifying individual vulnerabilities associated with the risk of exposure to bullying. *JAMA Psychiatry*. Published online April 3, 2019, ppE1-E9.


▶ Suicide Risk Prevention Center CALM training program – SAMHSA endorsed


Questions

Objective 1: Review epidemiology of depression, suicide, and bullying
What percent of U.S. high school students were electronically bullied or bullied on property in 2015?
   A. 3-10%
   B. 15-25%
   C. 25-50%
   D. 50-75%

Objective 2: Review most recent literature on bullying
Which of the following are mediating factors for becoming a victim of bullying
   A. High religiosity, resilience and emotion regulation ability
   B. Low religiosity, resilience and lack of substance use
   C. High religiosity, lack of substance use, sports involvement

Objective 3: Understand protective factors for suicide prevention, including those we can impact
Which of the following are protective factors in suicide prevention
   A. Remove access to lethal means, allow participation with child’s desired peers, insure adequate sleep
   B. Remove access to lethal means, normalize feelings, advocate for supportive school groups (e.g. Gay-straight Alliance)
   C. Remove access to lethal means, encourage open discussion around suicide with parents, implementation of curfew