Suicide Status Report 2019

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Sparks, Nevada
Suicide
Index

- IMPORTANCE
- DEFINITIONS
- RISK MNEMONIC: SAD ASS PEOPLES
  - Sickness (TBI)
  - Addiction
  - Depression
  - Age
  - Sex
  - Social supports (lacking)
  - Previous attempt
  - Environment
  - Obtunded
  - Planning
  - Lethality
  - Employment
  - Spouseless (alone)

- PREVENTION/TREATMENT
Suicide
IMPORTANCE

- According to a report on 2016 data released June, 2018 from the Centers for Disease Control and Prevention, suicide rates in the U.S. have risen nearly 30% since 1999.*
- About 10% of people with unipolar major depression or Schizophrenia die of suicide.
- About 15% of people with bipolar disorder die from suicide.
- There are 123 suicides per day.
- The National Suicide Prevention Lifeline reports that for every one person who commits suicide, says there are 280 people who think about it.
Suicide
IMPORyANCE (Data between 1999 & 2016)

June 2018 the Centers for Disease Control and Prevention report.
- Between 1999 and 2016 suicide rates rose across age, gender, race and ethnicity in all states but Nevada (1% decline).
- North Dakota’s rate increased by more than 57%.
- Montana’s rate was the highest, at 29.2 per 100,000 residents.
- The national average was 13.4 per 100,000 in 2016 versus 10.5 in 1999.
- Suicide rates rose the most in rural counties.
- Greater than half of the people that committed suicide had NO known mental health history.
Ten U.S. states, 9 in the West, had age-adjusted suicide rates in excess of 20 per 100,000 = 0.00020%

- Montana (25.9)
- Alaska (25.8)
- Wyoming (25.2)
- New Mexico (22.5)
- **Utah** (21.8)
- **Nevada** (21.4)
- **Idaho** (21.4)
- Oklahoma (21.0)
- Colorado (20.5)
- South Dakota (20.2)

West Virginia 19.3
- **Oregon** (17.8)
- **Arizona** (17.7)
- Vermont (17.3)
- Texas (12.6)
- California (10.5)
- **US Average** (13.5)
Suicide
IMPORTANCE (Data between 1999 & 2016)

United States in 2016: Suicides were nearly 45,000 (44,965) — more than twice the number of homicides (19,362).

- Suicide was the 10th-leading cause of death.
  - Suicide was the 2nd-leading cause of death for ages 15 to 34.
  - Suicide was the 4th-leading cause of death for ages 35 to 54.
- The most common method used across all groups (in the U.S.) was firearms.
- In 1999 there were approximately 30,000 suicides.
- “At what point is it a crisis?” asked Nadine Kaslow, past president of the American Psychological Association.
Suicide

IMPORTANCE – Rates by Country 2017 versus 2018

<table>
<thead>
<tr>
<th>Country</th>
<th>Suicide Rate/100k</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Korea</td>
<td>36.8/26.9</td>
<td>1 to 4</td>
</tr>
<tr>
<td>Guyana</td>
<td>34.8/29.2</td>
<td>2 to 3</td>
</tr>
<tr>
<td>Lithuania</td>
<td>33.5/31.9</td>
<td>3 to 1</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>29.2/14.6</td>
<td>4 to 29</td>
</tr>
<tr>
<td>Suriname</td>
<td>28.3/22.8</td>
<td>5</td>
</tr>
<tr>
<td>Hungary</td>
<td>25.4/19.1</td>
<td>6 to 12</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>24.2/22.5</td>
<td>7</td>
</tr>
<tr>
<td>Japan</td>
<td>23.1/18.5</td>
<td>8 to 14</td>
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<tr>
<td>Russia</td>
<td>22.3/31</td>
<td>9 to 2</td>
</tr>
<tr>
<td>Latvia</td>
<td>21.8/21.2</td>
<td>10</td>
</tr>
<tr>
<td>India</td>
<td>20.9/16.3</td>
<td>12 to 21</td>
</tr>
<tr>
<td>Poland</td>
<td>20.5/16.2</td>
<td>13 to 22</td>
</tr>
<tr>
<td>Ukraine</td>
<td>20.1/22.4</td>
<td>15 to 8</td>
</tr>
<tr>
<td>Belgium</td>
<td>17.8/20.7</td>
<td>19 to 11</td>
</tr>
<tr>
<td>Finland</td>
<td>16.7/15.9</td>
<td>24 to 23</td>
</tr>
<tr>
<td>France</td>
<td>15.8/17.7</td>
<td>29 to 17</td>
</tr>
<tr>
<td>Iceland</td>
<td>15.1/14</td>
<td>32 to 33</td>
</tr>
<tr>
<td>Cuba</td>
<td>14.6/13.9</td>
<td>34</td>
</tr>
<tr>
<td>United States</td>
<td>13.7/15.3</td>
<td>40 to 27</td>
</tr>
<tr>
<td>Sweden</td>
<td>13.2/14.8</td>
<td>42 to 28</td>
</tr>
<tr>
<td>Germany</td>
<td>13/13.6</td>
<td>44 to 36</td>
</tr>
</tbody>
</table>
Suicide Importance (1981–2011)

- Approximately 41,000 people per year
- Males 4:1 (except physicians)
- Peak rates for men: 80–90 years old
- Peak rates for women: 50–65 years old
- Most are not being treated!

There have been more deaths in Afghanistan by suicide than by active duty.
Suicide
IMPORTANCE – Rates: Perspective

- Remember, these suicide rate numbers are all double digits divided by 100,000; therefore we are talking about 0.000xx%
- All-cause death rates decreased significantly for age groups:
  - 65–74 (0.5%)
  - 75–84 (2.3%)
  - 85 and over (2.1%)
- Selection bias, measurement error, and other statistical bias (E.g., Basketball doesn’t make you tall, basketball selects tall people) The public and health professionals automatically assume the presence of depression and mental illness after the event of suicide.
Leading causes of death in perspective

- heart & circulatory disorders
- cancer
- respiratory disorders
- kidney disorders
- digestive disorders
- nervous system disorders
- infectious diseases
- non-transport accidents
- musculoskeletal disorders
- diabetes
- transport accidents
- suicide
- undetermined events
- murder
- medical complications
- pregnancy & birth
- war
Suicide IMPORTANCE (Data between 1999 & 2016)

Suicide Rates in the United States
(by state; per 100,000; average 2008–2014)

Data Courtesy of CDC
Suicide Definitions:

**Suicide** - injury self-inflicted

**Assault** - injury inflicted upon another

**Murder** - maximum assault
Murders **versus** School Massacres: Distinguishing Characteristics

- **Murders** *(most)* are crimes of passion committed in rage or fear *(fight or flight response).*
- **Mass murder** is the intentional killing of multiple victims by a single offender within a 24 hour period of time, and these account for less than one percent of all violent crimes.
- **School massacres** *(a subset of mass murder)* are planned out in advance with careful deliberation and lack of emotion by “pseudo-commandos.” Less than 0.001% of teenagers die in such shootings.
Mass murder

Adolescents
- Almost always tell friends beforehand.
- Tend to belong to a clique of misfits or a disenfranchised group.
- Usually victims of bullying which is motivational for attacking the school (the Columbine principal was described as a “sadistic bully”).
- Frequently the perps are proxies for a “violence coach” who teaches them (e.g. Charles Manson).

Adults
- Never tell
Suicide

Murder-Suicides

- **MURDER-SUICIDE:** The murderer will commit suicide after murdering their victim.
- **Murder** is the only crime that regularly results in offenders taking their own lives.
- **90%** of the perpetrators are men.
- **80-90%** of their victims are spouses or intimate partners (**SIs**).
- Greater than **75%** of murder-suicides occur in the home.
- A large number of (**SIs**) murder-suicides are a male caregiver killing his ailing (**SIs**) and then himself.
- Adults aged **55+** have murder-suicides rates that are **twice** as high as younger adults.
- **25%** of murder-suicides involve more than one victim.
- Men tend to kill their children and their spouses prior to suicide.
- Women tend to kill their children but **NOT** their spouses.
Suicide Definitions:

Suicidal behavior (four parts):
- Thoughts/Ideation
- Plans
- Attempts
- Completion
Suicide Definitions:

Suicidal behavior

- Thoughts/Ideation
  - Passive – the desire without the urge.
  - Active – the desire with urge and plan.
Suicide
Risk: Mnemonic

SAD ASS PEOPLES

- **S** = sex (male except female physicians)
- **A** = age (elderly males)
- **D** = depression (unipolar, bipolar & other psychiatric disorders & family history)
- **A** = addiction (drug use)
- **S** = sickness (chronic)
- **S** = social supports lacking
- **P** = previous attempt
- **E** = elevation (> 3000 feet)
- **O** = obtunded (hopelessness, cognitive rigidity, brooding rumination, thought suppression)
- **P** = planning (suicide note, giving away belongings)
- **L** = lethality (method availability, note,)
- **E** = employment type
- **S** = spouseless (protective for female physicians)
Suicide
SAD ASSPEOPLES – Depression (All things Psych)

Last week I told my psychiatrist, "I keep thinking about suicide," and he told me from now on I have to pay in advance.

Rodney Dangerfield
Suicide

Risk: Completed suicides

- Psychiatric disorders are associated with most completed suicides
  - 90% of individuals who die by suicide have psychiatric disorders (Bertolote & Fleischmann 2002).
  - However, more than 98% of people with psychiatric disorders do NOT die by suicide (Nordentoft et al. 2011).
  - Some mental disorders confer higher risk for suicide than others.
  - Depressive disorder 30% to 87% of completed suicides are by people with.
  - Substance abuse, often as a comorbid disorder, occurs in 19% to 50% of completed suicides (on the other hand in one study at autopsy for suicide 73% had BAC of zero). Those who self-harm have a much greater risk opioid use disorders and mixed intravenous drug use, and that risk is greater than that for alcohol misuse!
  - Schizophrenia 9% to 13% of people with this diagnosis complete suicide.
Suicide
Risk: Attempted suicides

1996 study looking at suicide attempters found:

- In **98%** of the cases at least one *Axis I* diagnosis was made.
- A high proportion of suicide attempters (82%) suffered from *comorbid psychiatric disorders*.
- **Depressive syndromes** were more common among **females (85%)** than **males (64%)**, 
- **Alcohol dependence** was more common among **males (64%)** than **females (21%)**.
Suicide

Risk: Completed suicides (Schizophrenia)
Suicide

SAD ASS PEOPLES – ADDICTION (Opiates) 2014

- The CDC has calculated that suicides from opioid overdoses nearly doubled between 1999 and 2014.
- A 2014 national survey showed that individuals addicted to prescription opioids had a 40 to 60 percent higher risk of suicidal ideation.
- Habitual users of opioids were twice as likely to attempt suicide as people who did not use them.
- The 2015 data from the CDC shows that 4,837 opioid-related fatalities were “intentional self-poisoning”, and another 2,553 were of undetermined cause.
- Many pain patients say they would kill themselves if they were about to be cut off from their pain pills. These deaths are often counted as accidental overdoses instead of suicides.
- Chronic pain appears to be a major risk factor for suicide.
- Long-term opioid therapy for chronic noncancer pain was discontinued, and pain intensity during the next 12 months on average did not increase, and in some patients there was a slight improvement in pain.
Suicide

Risk Factors: Death Involving FENTANYL
SAD ASS PEOPLES – ADDICTION (Opiates) 2002-2017

National Overdose Deaths
Number of Deaths Involving Other Synthetic Opioids (Predominately Fentanyl)

Source: National Center for Health Statistics, CDC Wunder
Suicide
Risk Factors: Death Involving FENTANYL, Heroin, Painkillers
SAD ASS PEOPLES – ADDICTION (Opiates) 2015-2018

Fentanyl deaths continue to rise, but heroin, prescription painkillers on the decline
Estimated overdose deaths in preceding 12 months, Jan. 2015 through Apr. 2018

Source: Provisional CDC data
Main disorders associated with a high risk for suicide, and the highest risk is among people with mood disorders and anxiety disorders

- **Unipolar** disorder (10% suicide)
- **Bipolar** disorder (15% especially mixed features)
- **Schizophrenia** (25 to 50% attempt and 13% succeed)
- **Anxiety** disorders
- **Substance** use problems
- Attention deficit hyperactivity disorder (**ADHD**)
- **Eating disorders** such as anorexia nervosa and bulimia
Suicide
SAD ASS PEOPLES – Depression (All things Psych)

- Panic symptoms (e.g. palpitations and fear of losing control or going crazy) are associated with a risk of suicidality among patients with panic disorder.
- Unipolar depression patients suffering from nightmares showed significantly higher suicide risk. Results concerning bipolar depression were inconclusive.
- Early child abuse is associated with both early onset mood disorders and impulsivity; so not surprisingly it is also associated with an elevated suicide risk.
Increased suicide risk associated with epilepsy

- Suicide risk varies across different types of epilepsy and in relation to the severity.
Suicide
SAD ASS PEOPLES – Depression (All things Psych)

Lowest increased risks:

- Organic mental disorders (delirium)
- Dementia
- Mental retardation
Depression
Unipolar verses Bipolar

Not all depressions are the same!

• The depressive episode can be bipolar or unipolar
• Treatment for unipolar depression is different than bipolar depression.
Depression 
Bipolar 
• Treatment failure 
• Family history 
• Activation 
• Sleep disturbance 
• Psychosis 

- Patients with bipolar I experienced mood symptoms 47.3% of the time
- Patients with bipolar II experienced mood symptoms 54% of the time
- Depression was 3.4-fold more frequent than mania
- Depression was 37-fold more frequent than mania
Suicidal behavior is familial.

- A family history of suicide increases risk of suicide attempts and completed suicide.
- **Heritability** of suicidal
  - ideation is about 43%
  - plan/attempt 44%
  - serious suicide attempt is 55%.
Suicide

How can suicide be prevented?

Important risk factors are:

- Depression and other mental disorders
- Substance abuse
- Prior suicide attempt
- Family history of suicide
- Family violence including physical or sexual abuse
- Firearms in the home
- Incarceration (especially for homicide)
- Exposure to the suicidal behavior of others, such as family members or peers

However, it is important to note that many people with these risk factors are not suicidal, while others who are contemplating suicide may not have any of these risk factors.
Suicide

How can suicide be prevented?

- Multiple studies show medications decrease suicidal behavior. Treating the underlying psychiatric disorder in suicidal patients is an effective way of reducing suicidality.
- There is no evidence that one class of antidepressants is better than another in preventing suicide.
- There is no association between antidepressant usage and increased suicide risk.
- HOWEVER, high-risk patients who have previously attempted suicide do NOT show a significantly decreased rate of suicidal behavior with antidepressants.
Suicide

How can suicide be prevented?

Multiple studies show medications decrease suicidal behavior. Treating the underlying psychiatric disorder in suicidal patients is an effective way of reducing suicidality.

- **Antidepressant therapy** study in 2003 on suicidal behavior in 395 depressed patients aged 65 years or older treated with paroxetine or nortriptyline.

- **At the beginning** of the study, approximately **77%** reported **suicidal ideation**.

- **After 12 weeks** on either medication, suicidal ideation had **resolved in all**.

- Those having **more severe suicidal thoughts** required a **longer period** of time for improvement.
Suicide

How can suicide be prevented?

- **Australian study** of depressed patients and suicide found that suicidality decreased with increased antidepressant usage.
Suicide

How can suicide be prevented?

- **In Sweden** epidemiologic data from 1990 to 1997 indicated that there was a 23% decrease in suicide rate in the population compared with previous decades.
- **SSRI antidepressants** were introduced into Sweden in 1990, and by 1997 there was a fourfold increase in antidepressant usage.
- These findings appeared to be consistent in other Nordic nations.
Suicide

How can suicide be prevented?

• The use of clozapine, especially in high-risk populations, appears to be able to reduce suicidal behavior.

• FDA gave clozapine indication for decreasing emergent suicidal behavior in schizophrenic and schizoaffective patients.

• Death from hematologic side effects from clozapine is about 1/10,000 while the estimated death rate in high-risk schizophrenic patients for suicide is 1 in 4 or 5, and the lifetime risk for suicide in all schizophrenic patients is 1 in 8 to 12.
Suicide
SAD ASS PEOPLES — AGE

“I told my doctor I wanna stop aging, he gave me a gun!”

Rodney Dangerfield
# Suicide

**SAD ASS PEOPLES – AGE (2016)**

## Leading Causes of Death in the United States (2016)

**Data Courtesy of CDC**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Select Age Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-14</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>1</td>
<td>Unintentional Injury</td>
</tr>
<tr>
<td>2</td>
<td>Suicide</td>
</tr>
<tr>
<td>3</td>
<td>Malignant Neoplasms</td>
</tr>
<tr>
<td>4</td>
<td>Homicide</td>
</tr>
<tr>
<td>5</td>
<td>Congenital Anomalies</td>
</tr>
<tr>
<td>6</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>7</td>
<td>Congenital Anomalies</td>
</tr>
<tr>
<td>8</td>
<td>Cerebrovascular</td>
</tr>
<tr>
<td>9</td>
<td>Influenza &amp; Pneumonia</td>
</tr>
<tr>
<td>10</td>
<td>Septicemia</td>
</tr>
</tbody>
</table>

*Note: The data is based on the leading causes of death in the United States in 2016 and is presented in rank order.*
The **highest** suicide rate (19.72) was among adults between **45 and 54 years**.

The **second** highest rate (18.98) occurred in those **85 years or older**.

The suicide rate of adolescents and young adults aged **15 to 24 years** was **13.15**.

Physician suicide rates increase abruptly by age.
D = DEPRESSION
(All things Psych)
Suicide
SAD ASS PEOPLES – ADDICTION

A = ADDICTION
Suicide
SAD  ASS PEOPLES – ADDICTION

- Those who self-harm have a much greater risk of opioid use disorders and mixed intravenous drug and risk is greater than that for alcohol misuse!

- Suicide from alcohol misuse is greater among women than among men.

- At autopsy for suicide 73% had BAC of zero.

- Menninger (1966) defined alcohol dependence as a chronic suicidal act; according to this definition, alcohol-dependent individuals prefer an apparently pleasurable way of destruction, rather than a direct way of suicide.
Suicide
SAD ASS PEOPLES — ADDICTION (Opiates) 2012

Percentage With Suicidal Thoughts

- Never Users
- Former Users
- Persistent Users
- Recent-Onset Users
- Past-Year Users With Prescription Opioid Disorders

* indicates statistically significant difference compared to Never Users.
Suicide

Risk Factors: Death Involving FENTANYL, Heroin, Painkillers

SAD ASS PEOPLES – ADDICTION (Opiates) 2015-2018

Have overdose deaths plateaued?
Estimated overdose deaths in preceding 12 months, Jan. 2015 through Apr. 2018

Source: Provisional CDC data
Suicide
SAD ASS PEOPLES – SICKNESS (chronic)

S = SICKNESS (chronic)
Suicide
SAD ASS PEOPLES – SICKNESS (Chronic) Life Expectancy

- Patients with a history of attempting suicide have a dramatically reduced life expectancy, and most excess deaths are due to physical health conditions.
- Life expectancy was shortened throughout the lifespan for both men (14 years) and women (9 years).
17 conditions associated with risk of suicide:

- Asthma
- Back pain
- Brain injury
- Cancer
- Congestive heart failure
- Diabetes
- Epilepsy
- HIV/AIDS
- Heart disease
- High blood pressure
- Migraine (cluster headaches)
- Parkinson's disease
Suicide
SAD ASS PEOPLES – SICKNESS (chronic)

- Approximately **70%** of suicides are linked to chronic illness or unrelenting pain.
- **Sleep disorders** and HIV both **doubled** the risk of suicide.
- **Traumatic brain injuries** were **nine times** more likely to die by suicide.
- **Having more than one chronic condition** also may increase suicide risk.
- **1 out of 26 men** WITH arthritis attempt vs. **1/50** WITHOUT.
- **5.3%** of women with arthritis attempted suicide compared to about **3%** general population.
- **Asthma, diabetes** and **Crohn’s disease** increase the likelihood a **young** person will have suicidal thoughts by **28%** and make plans to die by **134%**
Suicide
SAD ASS PEOPLES – ADDICTION & SICKNESS
Pain, Opioids, and Mental Health 2014 & 2015

National Violent Death Reporting System data from 18 participating states from 2003 to 2014

- There were 123,181 suicides
  - 10,789 (8.8%) had evidence of chronic pain with the most common conditions being:
    - Back pain (22.65%),
    - Cancer (12.5%),
    - Arthritis (7.9%).
  - Firearms were the most common method of suicide with or without pain
  - Opioid overdoses were the cause of death in 16.2% of persons with pain and 3.9% of suicides when pain was not present.
  - 51.9% of suicides with chronic pain tested positive for opioids.
  - 51.7% of those with chronic pain had a mental health problem.
    - 81.9% had a diagnosis of depression.
  - Benzodiazepines tested positive in 47.2%.
    - In general benzodiazepines are involved in > 30% of opioid overdose deaths.
    - Benzoz interfere with opiate analgesia when both are used
  - 64.7% of suicide notes by those who have a history of pain indicate that a pain condition or the pain itself played a role in the decision to commit suicide.
  - On average, suicides associated with chronic pain were more likely to occur in older people with the highest incidence among those aged 80 years or older.
  - Among patients with chronic pain, those taking higher doses of opioids were at greater risk of death by suicide.
Suicide
SAD ASS PEOPLES – SOCIAL SUPPORTS (lacking)

S = SOCIAL SUPPORTS (lacking)
Suicide
SAD ASS PEOPLES – SOCIAL SUPPORTS (lacking)

Social factors
 Social transmission
 Modelling
 Contagion
 Assortative homophily
 Exposure to deaths by suicide of others
 Social isolation
Suicide
SAD ASSPEOPLES – SOCIAL SUPPORTS (lacking)

SYM More than 60% of physicians with suicidal ideation indicated they were reluctant to seek help due to concern that it could affect their medical license.

SYM Volunteering support or assistance without being asked by the physician appears like an affront. Thus, the concerned colleague or partner may say nothing.

SYM For a physician to admit inability to another colleague is to admit failure.
Suicide
SAD ASS PEOPLES - Previous attempt

P = PREVIOUS ATTEMPT
Suicide

Family history: Attempts vs. Completions
SAD ASS PEOPLES - Previous attempt

- The suicide attempt rate in families of suicide attempters is higher compared to families of non-attempters.
- Studies suggest two suicide-related phenotypes:
  - Common (attempt and completion) suicide phenotype that includes both attempt and completion.
  - Suicidal ideation phenotype may be a separate suicide-related phenotype.
E = ENVIRONMENT (elevation)
Twin study of suicide in non-affective psychosis showed environment to be most important!
- 60% concordance with the shared-family vs 40% to the unique environment.

On the other hand:
- Nonshared (unique) environmental effects (i.e. personal experiences) also contribute substantially to the risk of suicidal behavior, whereas effects of shared (family) environment do not.
- A meta-analysis of all register-based studies and all case reports aggregated shows that concordance for completed suicide is significantly more frequent among monozygotic than dizygotic twin pairs.
Negative life events
  • Childhood adversities
  • Traumatic events during adulthood
  • Physical illness
  • Other interpersonal stressors
  • Psychophysiological stress response
United States Suicide Rates – Geographical Distribution (County Level)

Rates per 100,000 population
Rates appearing in this map have been geospatially smoothed

Source: WISQARS 2008-2014
Suicide


Suicide, White Men
by Health Service Area, 1988–1992

# of men

0 10 20 30 40+

suicides per 100,000 living people
Altitude and the metabolic stress from the insufficient intake of oxygen?

- **Asthma and air pollution** have been linked to increased suicide rates around the world.
- People **living at an elevation of 6,500 feet above sea level** (about the average altitude found across Utah) appear to have a 1/3 higher risk for suicide than those living at sea level.
- People in **South Korea** living at 6,500 feet above sea level also appeared to have a 125% higher risk for suicide than those living at sea level.
Suicide
SAD ASS PEOPLES – Obtunded (Cognition)

O = OBTUNDDED
(Cognition)
Suicide

SAD ASS PEOPLES – Obtunded (Cognition)

- Personality states versus traits
  - Hopelessness
  - Impulsivity
  - Perfectionism
  - Neuroticism and extroversion
Impulsivity can be useful to predict repeated suicide attempts in individuals with personality disorder.
Suicide
SAD ASS PEOPLES — Obtunded (Cognition)

Cognitive factors
- Cognitive rigidity
- Rumination
- Thought suppression
- Autobiographical memory biases
- Belongingness
- Burdensomeness
- Fearlessness about injury and death
Suicide
SAD ASS PEOPLES – Obtunded (Children & Adolescents)

- Openly suicidal statements or comments such as, "I wish I was dead," or "I won't be a problem for you much longer."
- Changes in eating or sleeping habits
- Frequent or pervasive sadness
- Withdrawal from friends, family, and regular activities
- Frequent complaints about physical symptoms often related to emotions/pain, such as stomachaches, headaches, fatigue, etc.
- Decline in the quality of schoolwork
- Preoccupation with death and dying
- No longer future-oriented.
- Give away important possessions.
Suicide
SAD ASS PEOPLES - Planning

P = PLANNING
1974 study looking at risk of suicide using Suicidal Intent Scale of 231 attempted and 194 completed suicides.

- The 33 attempted suicides who left suicide notes demonstrated significantly greater risk vs. 198 attempted suicides who did not leave notes.
Suicide
SAD ASS PEOPLES - Lethality

L = LETHALITY
Suicide Rate Among Physicians

- Psychiatrists have a higher rate of suicide, even higher than colleagues from other specialties.
- Specialties that have better access to drugs such as anesthesiologists.
- Physicians working in the emergency room may also have a higher rate.

**TYPES OF SUICIDE**

- Jumping off a bridge
- Pills
- Becoming an independent physician
Suicide

SAD ASS PEOPLES – LETHALITY (Methods)

- **Hanging** predominant method in most countries. The highest proportions were around 90% in men and 80% in women, as observed in eastern Europe (i.e. Estonia, Latvia, Lithuania, Poland and Romania).
- **Firearm** suicide was the most common method in the United States, but was also prevalent in Argentina, Switzerland and Uruguay, although only men used this method in Switzerland.
- **Jumping** from a height important role in small, predominantly urban societies such as Hong Kong SAR, Luxembourg and Malta.
- Poisoning with **pesticides** is common in rural Latin American countries (e.g. El Salvador, Nicaragua and Peru), Asian countries (e.g. the Republic of Korea and Thailand) and also in Portugal, notably among women.
- Poisoning with **drugs** was common in women from Canada, the Nordic countries and the United Kingdom. It also played an important role in male suicide in these countries.
- **Charcoal-burning** suicide is a relatively new method in Hong Kong (Special Administrative Region - SAR), China and urban Taiwan.
Suicide

SAD ASS PEOPLES – LETHALITY (Methods)

SUICIDE METHODS
METHODS USED IN RECORDED SUICIDE, 2008-2012

TENNESSEE
- 62.6% used firearms
- 18.6% used suffocation
- 13.5% used poison
- 5.3% used other methods

GEORGIA
- 63% used firearms
- 20% used hanging
- 12% used poison
- 2% used cutting/piercing
- 3% used other methods

UNITED STATES*
- 50.5% used firearms
- 24.7% used suffocation
- 17.2% used poison
- 7.5% used other methods

* Data from 2010 only

Sources: Tennessee Department of Health, Centers for Disease Control
Suicide
SAD ASS PEOPLE – LETHALITY (Methods: Attempts . Completions)

- **Drug overdose** is the most common method in suicide attempts, but it is fatal (completed) in less than 3% of cases.
- **Firearm suicide attempts** are fatal (completed) in about 85% of cases.
- **Firearms** are the most commonly used method of suicide among U.S. males (56.9%).
- **Poisoning** (including overdose) is the most common method of suicide worldwide for females (34.8%).
Suicide

Availability of lethal means: Physicians
Suicide

Availability of lethal means: Physicians

- Greater knowledge of and better access to lethal means, physicians have a far higher suicide completion rate than the general public.
Suicide
SAD ASS PEOPLES – EMPLOYMENT

E = EMPLOYMENT
Suicide
SAD ASS PEOPLE – EMPLOYMENT (WebMD 2018)

- One doctor commits suicide in the U.S. every day -- the highest suicide rate of any profession. -- 28 to 40 per 100,000* - more than twice that of the general population.
- The suicide rate in the general population is 12.3 per 100,000.

(*28/100,000 is 70% of 40/100,000)
Suicide
SAD ASS PEOPLE -- EMPLOYMENT (NIOSH)

#1. Medical Doctors Odds: 1.87
- Approximately 4% of doctors die from suicide.
- Male and female physicians are equally as likely to commit suicide.
- Doctors are approximately 1.87 times as likely to commit suicide than those working other occupations.
- Compared to standard female occupations, female doctors are 2.78 times as likely to commit suicide.
- Doctors are approximately 4X as likely to use drugs as a suicide method
Suicide
SAD ASS PEOPLE – EMPLOYMENT (NIOSH)

- #2. Dentists Odds: 1.67
- #3. Police Officers Odds: 1.54
  - African-American policemen Odds: 2.55
  - Women police Odds: 2.03
  - Caucasian policemen Odds:
  - More police get killed from felons than those who die of suicide.
- #4. Veterinarians Odds: 1.54
- #5. Financial Services Odds: 1.51
- #6. Real Estate Agents Odds: 1.38
- #7. Electricians Odds: 1.36
- #8. Lawyers Odds: 1.33
- #9. Farmers Odds: 1.32
- #10. Pharmacists Odds: 1.29
Suicide
SAD ASS PEOPLE – EMPLOYMENT (Business Insider 2011)

- #1. Marine engineers (1.89X)
  - 35 suicides
  - 1,295 white male deaths
- #2. Medical Doctors (1.87X)
  - 476 suicides
  - 16,887 white male deaths
- #3. Dentists (1.67X)
  - 148 suicides
  - 6,274 white male deaths
- #4. Veterinarians (1.54X)
  - 39 suicides
  - 1,353 white male deaths
- #5 Financial services (1.51X)
  - 170 suicides
  - 4,562 white male deaths
- Chiropractors (1.5X)
  - 43 suicides
  - 1,516 white male deaths
- Construction / equipment supervisors (1.46X)
  - 35 suicides
  - 2,038 white male deaths
- Urban planners / social scientists (1.43X)
  - 148 suicides
  - 3,068 white male deaths
- Hand molders (1.39X)
  - 48 suicides
  - 2,084 white male deaths
- Real estate sales (1.38X)
  - 460 suicides
  - 18,763 white male deaths
Suicide
SAD ASS PEOPLES – EMPLOYMENT (CDC 2011)

- The CDC report November of 2018, but covers 2015 and is just from 22 states.
- CDC provides suicide data at the highest level of "major occupational group" and splits the US workforce into just 22 occupations. As a result, many different sub-occupations are lumped together in just one occupation (for example, nursing, doctors, and dentists are all in one occupation).
### The Professions with the Highest (and Lowest) Suicide Rates

2015 rate of suicide per 100,000 according to CDC

<table>
<thead>
<tr>
<th>Rank</th>
<th>Professions</th>
<th>Suicide Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction and Extraction</td>
<td>52.1</td>
</tr>
<tr>
<td>2</td>
<td>Installation, Maintenance, and Repair</td>
<td>37.8</td>
</tr>
<tr>
<td>3</td>
<td>Arts, Design, Entertainment, Sports &amp; Media</td>
<td>27.3</td>
</tr>
<tr>
<td>4</td>
<td>Transportation and Material Moving</td>
<td>26.8</td>
</tr>
<tr>
<td>5</td>
<td>Production</td>
<td>24.3</td>
</tr>
<tr>
<td>6</td>
<td>Protective Service</td>
<td>24.2</td>
</tr>
<tr>
<td>7</td>
<td>Farming, Fishing, and Forestry</td>
<td>18.7</td>
</tr>
<tr>
<td>8</td>
<td>Building &amp; Grounds Cleaning &amp; Maintenance</td>
<td>18.2</td>
</tr>
<tr>
<td>9</td>
<td>Architecture and Engineering</td>
<td>17.6</td>
</tr>
<tr>
<td>10</td>
<td>Food Preparation and Serving Related</td>
<td>14.8</td>
</tr>
<tr>
<td>11</td>
<td>Sales and Related</td>
<td>14.2</td>
</tr>
<tr>
<td>12</td>
<td>Computer and Mathematical</td>
<td>14.0</td>
</tr>
<tr>
<td>13</td>
<td>Legal</td>
<td>13.8</td>
</tr>
<tr>
<td>14</td>
<td>Life, Physical, and Social Science</td>
<td>12.8</td>
</tr>
<tr>
<td>15</td>
<td>Health Care Practitioners and Technical</td>
<td>12.5</td>
</tr>
<tr>
<td>16</td>
<td>Management</td>
<td>12.5</td>
</tr>
<tr>
<td>17</td>
<td>Health Care Support</td>
<td>11.9</td>
</tr>
<tr>
<td>18</td>
<td>Personal Care and Service</td>
<td>10.1</td>
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<tr>
<td>19</td>
<td>Community and Social Service</td>
<td>9.0</td>
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<tr>
<td>20</td>
<td>Office and Administrative Support</td>
<td>8.6</td>
</tr>
<tr>
<td>21</td>
<td>Business and Financial Operations</td>
<td>8.5</td>
</tr>
<tr>
<td>22</td>
<td>Education, Training, and Library</td>
<td>5.3</td>
</tr>
</tbody>
</table>
Suicide
SAD ASS PEOPLES – EMPLOYMENT (Active-Military)

- Suicide rates for military personnel have dropped since 2009 to approximately 18/100,000
- 50% of all troops that engaged in suicide had never deployed.
- Suicide rates among troops sent to Iraq and Afghanistan had drastically increased (by double) until 2009, the rates among those who were never deployed tripled.
- It is difficult to compare military personnel to other careers because most people serve a brief stint in the military, whereas other careers tend to be lifelong.
Suicide
SAD ASS PEOPLES – EMPLOYMENT (Veterans)

2014

- Adjusting for differences in age and sex, risk for suicide was **22 percent higher (HR=1.22)** among Veterans when compared to U.S. non-Veteran adults.

- Of all the veterans who died by suicide, approximately **65 percent** were age 50 or older.

- Overall, the veteran rates mirror those of the general population in the geographic region, with the highest rates in Western states.
SAD ASS PEOPLES – SPOUSELESS (Live alone)

S = SPOUSELESS (Live alone)
Suicide
SAD ASS PEOPLES – SPOUSELESS (Live alone)

- **Marriage** is in most populations considered to be **protective** against emotional distress. This does **NOT** seem to be true for **female physicians**.

- Living alone
Suicide

Celebrity Suicide:

Stephanie Adams
(July 24, 1970 – May 18, 2018)

She was the November 1992 Playboy Playmate

According to the New York City Police Department, Adams pushed her son out of a 25th-story window, before jumping herself.

Police had been called to their home several times in the past few months.

She'd been dealing lately with a custody clash.
Suicide
Celebrity Suicide:

August Ames  
(August 23, 1994 – December 5, 2017)  
She was a Canadian pornographic actress and model.  
Ames' mother suffered from bipolar disorder.

Ames alleged that she was routinely sexually molested by her paternal grandfather as a child,

She had a history of bipolar depressive disorder and dissociative identity disorder due to a traumatic childhood,
Suicide
Celebrity Suicide:
David Stroh Buckel
(June 13, 1957 – April 14, 2018)

“Around February, his ritual changed, as he went from gratitude to sharing grim climate news. When he went to court, “he was impeccably color-coordinated and there was never a wrinkle or a crease in the wrong place.” His office was tidy to the point of seeming sterile. Before snapping a binder clip on a document, he folded a piece of paper over the pages, so it wouldn’t leave a mark, a former legal assistant remembered. It was meticulously organized,” “Boots
Suicide
Celebrity Suicide:

Donald Cortez "Don" Cornelius
(September 27, 1936 – February 1, 2012)

He shot himself in the head. He had been suffering from seizures during the last 15 years of his life, a complication of a 21-hour brain operation he underwent in 1982 to correct a congenital deformity in his cerebral arteries. He admitted that he was never quite the same after that surgery, and it was a factor in his decision to retire from hosting Soul Train in 1993. According to his son, Cornelius was in "extreme pain"
Anthony Bourdain
Anthony Bourdain

Suicide by hanging in his room in France.

- Smoky voice, from his cigarette-fueled past. He walked around in that tattoo-stained body.
- Diagnosis with Parkinson's three months prior.
- Girlfriend had recently ended their relationship.
- He struggled with drug addiction (“drink and smoke weed)
- In a Parts Unknown episode that visited Buenos Aires, Argentina, Bourdain visited a psychotherapist. “I find myself in a spiral of depression that can last for days.“
- Friend of Bourdain, noticed the man’s mood change in the days before he died.
Kate Spade

Suicide by hanging in her room in June.

A long struggle with bipolar disorder
Kate Spade

**Suicide** by hanging in her room.
- A long struggle with **bipolar disorder**
- Symptoms of anxiety and depression
Suicide rates in the U.S. have risen nearly 30% since 1999, according to a report released June, 2018 from the Centers for Disease Control and Prevention.

About 10% of people with major depression die of suicide. About 15% of people with bipolar disorder die from suicide.

There are 123 suicides per day.

For every one person who commits suicide, the National Suicide Prevention Lifeline says there are 280 people who think about it.
Robin Williams

- “Suicide contagion“ - experts say exposure to media coverage of a high-profile suicide, especially that which fixates on the details of a person's death, can lead to more suicides.
- Columbia University study in February showed suicides rose nearly 10% higher than expected in the months following Robin Williams' death in August 2014.
- Suicides involving the method Williams used (suffocation) spiked 32% over that time, suggesting news coverage of the actor's death may have played a role.
- A British TV hospital drama featured an overdose, and included details of drug and amount that was taken, data collected from 49 accident and emergency departments the following week showed a 17% increase in overdoses.
- Suicide attempts rose for four weeks following the suicide of a celebrity in Taiwan where the method used had received a great deal of media coverage.
Suicide Rates: Leading causes of death in perspective (U.S. 2015 and 2016)

The 10 leading causes accounted for 74.1% of all deaths in the United States in 2016.
Suicide

Treatment: Evaluation documentation

1) Write so the reader does not have to guess what you were thinking. Do not force the potential reader to make inferences; explain what the facts mean to you.

2) The note should be an explicit description of how the facts of the case led you to your assessment.

3) Address the risk factors explicitly.

4) Use direct patient quotes whenever possible and applicable, use as many quotes from the patient as possible, and then interpret them!

5) Get another person's opinion and document it.

6) Explain your immediate interventions: what you did, why you did it, and the results.

7) Address why you did not use certain interventions, especially hospitalization, medications, or contacts.*

*Contracts don’t work, but you may be dealing with the ignorant
Suicide

Treatment: Evaluation documentation

1) Write so the reader does not have to guess what you were thinking:

- The biggest mistake in medical note is not writing enough in the "assessment" and "plan" section.
- Connect the dots for the potential reader.
- E.g., "Patient denied suicidal ideations . . . was joking with staff . . . contracts for safety. . . “ (then make it obvious what you were thinking): "I was able to conclude that the patient wasn't suicidal because not only was he denying suicidality but his good affect and joking with staff reinforced that he felt better."
- Alternatively: "With me, he was crying, but when I left the room and he thought the evaluation was over, I watched him joking and laughing with one of the nursing assistants, from which I inferred that he was exaggerating some of his symptoms." The diagnosis "Malingering; plan: discharge,"Doctors are not omniscient; they can be wrong as long as they were reasonable in their judgment."
2) The note should be an explicit description of how the facts of the case led you to your assessment:

- **Address the risk factors explicitly. E.g.,** "Based on this, I concluded that. . . ."

- **Hopelessness and pessimism about the future** are very important **predictors of risk**, and they should be **noted explicitly. E.g.,** "Currently he is not suicidal, feels fairly hopeful about the future, and has made some specific future plans like. . . ."
Suicide

Treatment: Evaluation documentation

3) Address the risk factors explicitly:

- E.g., "The main risk factors for suicide in this patient include a history of previous suicidality, a diagnosis of borderline personality disorder, and alcohol abuse; however, he has not actually ever made an attempt, has been abstinent for 2 days and has a low risk for withdrawal, is highly motivated to continue treatment as an outpatient, and denies access to weapons (wife corroborates this)." However, given his history of repeated suicidal ideation, it is probable that he will attempt suicide again at some point in his life when stressed. Unfortunately, this is a function of his future acute stressors—stressors over which I have no current control—not how he feels right now."

- Admitting that the patient is likely to attempt suicide again in the future but that it has nothing to do with how he feels today is important.
Suicide

Treatment: Evaluation documentation

4) Use direct patient quotes whenever possible and applicable., and use as many quotes from the patient as possible and then interpret them!

○ E.g., He said, “I will never kill myself, because of my children.”
5) Get another person's opinion and document it.

- E.g., "Spoke with his wife, who agreed with my plan; she said, 'I didn't think he needed to be hospitalized.'" Or if they did not agree, "Discussed the situation with Doctor X, who also evaluated the patient, and X agreed with me."
Suicide

Treatment: Evaluation documentation

6) Explain your immediate interventions: what you did, why you did it, and the results.
   ▪ Tie it together.

"Given the chronicity of the patient's suicidality, I have to do something that will actually help him in the long term. I believe he is not suicidal now, so my responsibility is to help decrease his suicide risk as best I can. I believe that the best way to help is to refer him for [intensive therapy/day program/psychiatric visit] for long-term follow-up so he can have somewhere to go and someone to manage him as symptoms and stressors develop. We discussed a crisis plan for future suicidality: at the first sign of distress he will call X; if this is not sufficient, he will call Y, and then Z. In addition, person A will stay with him and, if symptoms worsen, A will bring the patient to the ED."
7) Address why you did not use certain interventions, especially hospitalization, medications, or contacts.

- When the lawyer asks, "Why didn't you hospitalize him?" write the report so the jury will already be aware of the answer.

- Do not simply write that you are not going to hospitalize the patient, **write why**!

- E.g., "Hospitalizing Mr. X now is not going to alter that future eventuality and thus is not indicated today. In fact, recurrent hospitalization may be detrimental because it seems to have established a pattern of dependency rather than finding better ways to deal with distress."
Suicide Treatment: Evaluation documentation

- E.g., "However, given his history of impulsiveness, drug use, and past suicide attempts, it is probable that he will attempt suicide again at some point in his life when stressed. Unfortunately, this is a function of his future acute stressors—stressors over which I have no current control—not how he feels right now."
Suicide

Treatment: Evaluation documentation

- Tie it together.

"Given the chronicity of the patient's suicidality, I have to do something that will actually help him in the long term. I believe he is not suicidal now, so my responsibility is to help decrease his suicide risk as best I can. I believe that the best way to help is to refer him for [intensive therapy/day program/psychiatric visit] for long-term follow-up so he can have somewhere to go and someone to manage him as symptoms and stressors develop. We discussed a crisis plan for future suicidality: at the first sign of distress he will call X; if this is not sufficient, he will call Y, and then Z. In addition, person A will stay with him and, if symptoms worsen, A will bring the patient to the ED."
Suicide Treatment: Myths

- Talking about suicide is **NOT** dangerous!
- Suicide **contract**: “Contracting for safety” is **NOT** effective!
**Suicide Treatment: ECT**

- ECT has anti-suicidal effects in patients with unipolar depression and bipolar depression.
- ECT has NO anti-suicidal effects in the patients with bipolar mania and mixed state.
Suicide Treatment: Unintended consequences

- Soon after the start of the selective serotonin reuptake inhibitor (SSRI) era, which started in 1987, suicide rates in young adults between 10 and 24 years of age began declining steadily between 1990 and 2003.


- The FDA required a “black box” warning to package inserts for antidepressants because of increased risk of suicidal thoughts and behavior (suicidality) in children and adolescents. In 2007, the FDA extended the age range up to 24 years of age.
Suicide Treatment: Unintended consequences

Results:
- SSRI prescriptions for youths decreased by approximately 22% in both the U.S. and the Netherlands after the warnings were issued.
- In the Netherlands, the youth suicide rate increased by 49%.
- U.S., youth suicide rates increased by 14% which was the largest year-to-year change in suicide rates in this population since the CDC began systematically collecting suicide data in 1979.
Suicide

Treatment: Unintended consequences

U.S. Suicide rate ages 5-19
Suicide Treatment: Unintended consequences

- In the U.S. There was a 14% increase in the suicide rate for youths 5 to 19 years of age between 2003 and 2004 was the largest annual increase since 1979.
Suicide Treatment

Unintended consequences: Netherlands Suicide rate up to age 19
Suicide Treatment: Unintended consequences

- It is possible that some patients, especially young adults and the elderly, are placed at an increased risk of suicidality because of antidepressant-induced akathisia.
- Depression in some patients, particularly younger patients who experience increased suicidality and low efficacy with antidepressants, are misdiagnosed as unipolar depression instead of as a bipolar spectrum disorder.
Suicide
**TREATMENT** ("Antidepressants" & Hospitalization)

- Physician depression and suicidality require immediate treatment and confidential hospitalization.
- These measures are lifesaving—more so than in other populations.
Promising approach to identify suicidal individuals

- Suicidal and non-suicidal participants have different brain activation patterns for specific thoughts,
- Analyzing alterations how the brains of suicidal individuals represent death, cruelty, trouble, carefree, good, and praise.
- Method can tell whether someone is considering suicide by the way that they are thinking about these death-related topics with 91% accuracy.
- Method can identify people who had made a previous suicide attempt from those who only thought about it with 94% accuracy (The program was able to accurately distinguish the nine who had attempted to take their lives).
Suicide Treatments using fMRI: Brain activation pattern for "death"