This week's Zoom recording can be viewed at: www.scientechclub.org/zoom/501.mp4

Program: Suicide in the U.S. - Current Data and Interventions
Speaker: Susan K. Conroy, MD, PhD, Psychiatrist and Neuroscientist, IUSM
Introduced by: Marvin Miller
Attendance: 86
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Overview:

Suicide demographics
Rick factors and Models
Predicting suicidal behavior
Neurobiology

Who dies by suicide? Who attempts suicide?

Over half of the people are affected by suicide, the 10th leading cause of death in the US. In 2020, 1.4 million attempted suicide, of which 48.3K were successful. 90% of those deaths had a diagnosable mental health condition. Men die 3.6 times more often than women, but women attempt 1.4 times more than men. In 2017 veterans were 1.5 times more likely to die by suicide. Ten percent of Americans have thought about suicide at one time. Firearms account for 50% of suicide deaths which is actually more than murders by firearms. Indiana ranks in the middle third of suicide rates.

Suicide is the 2nd leading cause of death for ages 10-34 and the 4th leading cause for ages 35-54. For ages 10 and over, women die by suicide at about 6/100K population, but men average 25/100k. This jumps to 40/100K for men at age 75+. By race rates for whites are almost 3 times higher than blacks. American Indian rates are the highest, which may be cultural. The dominate methods are firearm and suffocation (hanging), but 30% of women suicides are by poisoning (overdose on meds).

Overall, 5% of US adults (12 million) had suicidal thoughts in 2019, but almost 12% in 18-25 year-olds. Data for 2020 is not yet available, but COVID-19 is likely to be significant. Fortunately, the actual attempts are 90% less or an average of 0.5%, however the 1.8% of the 18-25 group attempted suicide. To summarize in 2019, 12M had serious thoughts about suicide, 3.5 M made plans, 1.4 M tried, and 50K died.

Risk factors and Models:

90-95% of people who die have a diagnosable psychiatric illness, but most with a psychiatric illness do not die by suicide. Major depressive episodes confer the highest risk but also bipolar mixed episodes, schizophrenia, Cluster B personality disorders, and substance abuse disorders. Other significant factors are personal history of attempts and close family/acquaintance suicide history.

Examples of social factors include living alone, high introversion, hopelessness/helplessness, financial/legal difficulties, chronic diseases, and traumatic brain injury. By contrast reducing risk factors include a good support network, strong reasons for living, responsibility, religiosity, extraversion, and optimism.

Environmental risk factors include access to firearms and drugs, prolonged stress, major stressful life events, and graphic exposure to other suicides.

Historical risk factors include previous attempts, family history, and childhood abuse.

There are many models of suicide risk involving many factors. They are too detailed for this summary, but two presented were by Turecki and Brent and another by Lutz.

Predicting and Preventing Suicide:

Preventing suicide deaths is analogous to preventing deaths by lightning strike. Various knowledge and public safety measures have reduced death from lightning by 90% since 1940, but it remains very difficult to prevent on an individual level.

Suicide screening finds mostly false positives who will never die of suicide and is inadequate in predicting short term risk. It can identify people who may need referral for treatment, but not hospitalizing them which has negative inferences including hiding the experience.

False negatives are really to be avoided. Once a person is committed to suicide, they reject help and lie to conceal their real suicide ideations.

So , what can be done? Identifying risk ideas include AI machine learning, psychiatric risk assessment, interview family, reduce access to firearms/drugs, safety planning, and referrals for treatment. Medications include pharmacotherapy (lithium, clozapine and ketamine, and psychotherapy (CBT-SP and DBT), and neuromodulation (ECT) is very effective in major depressive cases.

Neurobiology:

Brain scans measure brain activity. These can be done on people who have had highly serious suicide attempts. Inflammation may be a factor.

A decrease in activity function in the dorsal pre-frontal cortex leads to reduced execution function like poor decisions and more impulsive behavior. More activity in many other parts of the brain leads to more depressive states.

Dr. Conroy closed by recommending the use of the National Suicide Prevention Lifeline and the Veterans Crisis Line. She starts by talking to the person at risk and assuring them that it would not induce suicidal behavior itself. She also recommended two books: *Night Falls Fast*, by Jamison and *The Noonday Demon* by Solomon.

Dr. Conroy

Mental Health Resources

Family Doctors – They provide about 70% of all psychotropic prescriptions and are often the quickest and most comfortable way to get care.

There are over 100 private psychiatrists in the Indianapolis area. Referrals usually come thru the family doctor.

Aspire Community Mental Health Center (CMHC): www.aspireindiana.org It is just north of St Vincent Carmel Hospital at 697 ProMed Lane, 46032. Emergency phone is 800 560-4038**.** Routine appointments are obtained through 877 574-1254

The largest provider of emergency MH hospital care in the Indianapolis area is through the Gallahue Pavilion at Community North Hospital.

Midtown CMHC: www.eskenazihealth.com Crisis intake is through the ER at Eskenazi Hospital – about 1300 W 10th Street. 46202. Routine intake calls 317 880-8491 This is the oldest CMHC in the State.

Gallahue CMHC: www.ecommunity.com Emergency services at the Behavioral Health Pavilion at Community Hospital North just east of I-69 on 82nd St. Emergency number is 317 621-5700 Routine intake number is same. Gallahue has over 120 beds for acute hospital care.

The CMHC for the south side of Indy is Adultandchild.org Phone is 877 882-5122

The west side of town is served by cumminsbhs.org. Phone is 317 272-6365.

Services at a CMHC used to be restricted in a geographic fashion but now any person can seek care at any center.

A new NeuroDiagnostic Institute and Advanced Treatment Center (NDI) opened in April 2019 adjacent to Community Hospital East at 16th and Ritter on the Indianapolis eastside.

The NDI replaces the old state hospital known as (Larue Carter which has closed. NDI cares for the most severely ill patients and referrals come through the local CMHCs as well as private psychiatrists.

The Indiana Health Group is the largest private group in the area www.indianahealthgroup.com They have about 10 psychiatrists and over 20 therapists. Their phone is 317 843-9922 and they are located at 703 ProMed Lane 46032 and almost adjacent to the Aspire CMHC in Carmel

The Indiana University School of Medicine has outpatient psychiatry offices at 355 W. 16th Street in the Neuroscience Building. http://psychiatry.medicine.iu.edu/clinical-care/for-patients/ Care is provided by psychiatrists as well as medical students and residents under their supervision. They also have some inpatient beds for adults and for children. They conduct research trials about genetics, causes of

illnesses, and on the newest psychotropic meds. The intake phone for adults is 317-963-7300. For children's services it is 317-944-8162.

All of the above facilities also offer some drug and alcohol abuse treatment. The largest facility in the area dedicated to treatment of abuse is Fairbanks Hospital www.fairbankscd.org located at 8102 Clearvista Pky., 46256 and their phone is 800-225-4673

When patients need care, refuse to get it and are dangerous to themselves or others, the family can get a 72-hour emergency detention at any of the CMHCs. In more urgent situations where the patient is in danger of harming themself or others, one may call 911 and the police will generally take the patient to Eskenazi ER or the Community North ER where they can be assessed and possibly kept for 72 hours.

Suicide Hotline: 988

This connects to the national suicide hotline. They can provide some immediate help and also connect someone to local help such as the agencies above.