Suicide Seminar Symposium Guide

APA Expedited Grant Seminar & Symposium

Increase in Adolescent and Physician Suicide: *Hiccup or Trend?*

"360° View, Challenges & Discussion"

April 20, 2024

Laureate Psychiatric Hospital
Doubletree Hotel - Warren Place
Tulsa, OK

OKLAHOMA PSYCHIATRIC PHYSICIANS ASSOCIATION

Jointly provided by the
American Psychiatric Association
Oklahoma Psychiatric Physicians Association

6 AMA PRA Category 1 Credit™

CME Coordinator
S.S. Vinekar, M.D., DLFAPA, DLFAACAP, MACP, ABPN-P-C
Senior Disability Analyst, Professor Emeritus, OU College of Medicine

https://www.oklapsychiatry.org

Contents

Agenda at A Glance

11:30 pm Registration/Visit Exhibits
Laureate Psychiatric Hospital & Clinic

12:25 pm Welcome
Tessa Manning, MD, *OPPA President*

12:30-1:30 pm
"Adolescent Suicide Trends and Risk Assessment"
Swapna Deshpande, MD, FAPA, DFAACAP

1:30-2:30 pm
"Neurobiology of Suicide"
Ashley Walker, MD

2:30 pm Break, Visit Exhibits

2:45-3:45 pm
"Treatment Approaches to Suicidal Adolescents"
Sara Coffey, DO, FAPA

3:45-4:45 pm
"Substance Use and Suicide"
Jason Beaman, DO, MS, MPH, FAPA

4:45 pm Break, Visit Exhibits

5:00-6:00 pm
"Physician Suicide: Why the Increase and Why Now?"
Swapna Deshpande, MD, FAPA, DFAACAP

6:30-7:30 pm
OPPA Annual Meeting & Awards
Dinner Buffet & Cash Bar
Doubletree Hotel-Warren Place, Parkview East Banquet Room

7:30-8:30 pm
Interactive Symposium: 360° View, Challenges, Discussion
Swapna Deshpande, MD, Moderator

Seminar Abstract and Objectives

Abstract

Recent increases in the rate of suicides in adolescents and physicians in the US are of grave concern to psychiatrists. This seminar and symposium are designed to offer educational activity to update the knowledge base of attendees and offer an opportunity to consider the issues of etiology, contributing factors including substance abuse, access to care and impediments in obtaining effective preventive treatment.

The seminar and following interactive dinner discussion will cover these topics in a 360° fashion to prepare participants to implement the knowledge and techniques in their daily practice immediately.

Seminar Description

In Oklahoma, ***suicide*** is the second leading cause of death for ages 15-34. According to the American Foundation for Suicide Prevention, on average, one person dies by suicide every 12 hours in Oklahoma. That is two each day!

Also, alarming is the fact that ***one physician dies by suicide*** every day in the United States, according to findings presented at the American Psychiatric Association 2018 Annual Meeting. New research shows the number of physician suicides is more than twice that of the general population.

The stigma and undesirable professional and social repercussions of mental illness are formidable obstacles to seeking help. It is time for serious in-depth thinking and responding to the critical needs of our colleagues and teenagers who may continue to face self-inflicted damage and lose their lives prematurely from preventable causes.

Objectives

The participant in this educational activity will be able to:

- Discuss the most recent understanding of etiology and neuroscientific mediators leading to suicides in adolescents and physicians.
- Describe the probable causes for recent trends in the increased rate of suicides in adolescents and physicians.
- Explain the role of substance abuse in causation and contribution to suicides in adolescents and physicians and reasonable approaches to address both the treatment of psychopathology, social and work-related issues, and management of substance abuse.

Commercial Support

There is no commercial support for this live activity.

Conflict of Interest

The CME Course Director has reviewed this activity's speaker and planner disclosures and resolved all identified conflicts of interests, if applicable.

CME Accreditation and Designation

In support of improving patient care, this activity has been planned and implemented by the American Psychiatric Association (APA) and the Oklahoma Psychiatric Physicians Association (OPPA). APA is jointly accredited by the American Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

The APA designates this live activity for a maximum of ***6 AMA PRA Category 1 Credit™.*** Physicians should claim only credit commensurate with the extent of their participation in the activity.

How to Claim Continuing Education Credit

At the conclusion of the course, physician participants will be provided with a **LINK** to claim hours of participation and receive an official **CME certificate** by completing an online CME course evaluation.

Non-physician participants can also receive a certificate of participation. At the conclusion of the conference, participants should complete the online conference evaluation in order to print a certificate of attendance.

Certificates will on longer be available after June 19, 2024.

Target Audience

This activity was developed as a **complimentary membership benefit** for members of the Oklahoma Psychiatric Physicians Association through a 2019 American Psychiatric Association Expedited Grant. OPPA members may attend at no cost. Other non-member psychiatrists, physicians and mental health professionals are welcome to attend this activity, but will pay a registration fee.

Planning Committee and Faculty Disclosures

The American Psychiatric Association adheres to the JA/ACCME's *Standards for Integrity and Independence in Accredited Continuing Medical Education*. Any individuals in a position to control the content of CME activity - including faculty, planners, reviewers or others - are required to disclose all relevant financial relationships with ineligible entities (commercial interests). All relevant conflicts of interest have been mitigated prior to the commencement of the activity.

Planning Committee: **Shree Vinekar, M.D.** *(Course Contact)***; Christine Cotter; Robyn Cowperthwaite, M.D.; Heather Geis, M.D.; S. Jay Lensgraf, M.D.; Tessa Manning, M.D.; Renée Mixon; Britta Ostermeyer, M.D.; Jed Perdue, M.D.** and **Phebe Tucker, M.D.** has no relevant financial relationships to disclose.

Faculty Disclosures: **Swapna Deshpande, M.D.; Ashley Walker, M.D.** and **Jason Beaman, D.O.** has no relevant financial relationships to disclose.

Sara Coffey, D.O. has the following financial relationship to disclose: Consultant, Eli Lilly & Company.

Distinguished Faculty

Swapna Deshpande, M.D., FAPA, DFAACAP

Swapna Deshpande, MD is Clinical Associate Professor of Psychiatry and Behavioral Sciences, Department of Psychiatry and Behavioral Sciences, Oklahoma State University Center for Health Sciences, Tulsa. Dr. Deshpande is board certified in Adult Psychiatry and Child and Adolescent Psychiatry. She was also awarded Fellow Status for the American Psychiatry Association (APA) in 2014. She is currently the immediate Past President of Oklahoma Council for Child and Adolescent Psychiatry, a regional branch for the national organization of American Academy of Child and Adolescent Psychiatry (AACAP) and has been awarded a distinguished fellowship status in 2020 for AACAP. She has broad training in various kinds of specialized psychotherapies including cognitive behavioral therapy, psychodynamic therapy, and trauma informed therapy. She has obtained specialized training in Psychopharmacology, Child abuse and Neglect, Functional medicine, Psychoanalytic therapy and Obesity Medicine. She has won several awards for outstanding teaching including the prestigious Gordon Deckert award, highest teaching award in the Department of Psychiatry at OU in 2018.

Ashley Walker, M.D.

Ashley Walker, MD is an Associate Professor and the Psychiatry Residency Training Director at the University of Oklahoma School of Community Medicine, Tulsa, Oklahoma. She is also co-chair of both the National Neuroscience Curriculum Initiative and the National Anti-Racism in Medicine Curriculum Coalition. Her professional interests include psychiatric education; physician well-being; treatment of severe mental illness; and all things related to Diversity, Equity, Inclusion, Justice, and Anti-Racism. She likes spreadsheets, local breweries, and book clubs.

Sara Coffey, D.O., FAPA

Sara Coffey, D.O. is Interim Chair, Clinical Assistant Professor of Psychiatry and Behavioral Sciences, and Director, Child & Adolescent Psychiatry, Department of Psychiatry and Behavioral Sciences, Oklahoma State University Center for Health Sciences, Tulsa. She is an Assistant Clinical Professor of Psychiatry and Behavioral Sciences at Oklahoma State University Center for Health Sciences (OSUCHS). Dr. Coffey completed her adult psychiatry residency at the University of Chicago and her child and adolescent psychiatry fellowship at Harvard Medical School's Cambridge Health Alliance. During her adult psychiatry training, Dr. Coffey served as the chair of the Public Health Committee for the American Medical Association's Resident's Committee. She served as a public psychiatry fellow for the American Psychiatric Association for two years during her psychiatry training. Dr. Coffey is currently contracted with the Department of Mental Health to provide technical assistance in the implementation of Oklahoma Health Homes. Through her partnership with the Department of mental health she has provided on-site consultation to the majority of health homes in Oklahoma and has lectured on both collaborative care models in pediatrics, as well as preventative care in children.

Jason Beaman, DO, MS, M.P.H., FAPA

Jason Beaman, DO is Clinical Assistant Professor of Psychiatry and Behavioral Sciences, Department of Psychiatry and Behavioral Sciences, Oklahoma State University Center for Health Sciences, Tulsa. Dr. Jason Beaman graduated medical school from Oklahoma State University Center for Health Sciences. He then completed two simultaneous residencies in Psychiatry and Family Medicine. After residency, Dr. Beaman completed a fellowship in Forensic Psychiatry at Case Western Reserve University in Cleveland, Ohio. He holds board certifications in Family Medicine, Psychiatry, Forensic Psychiatry, and Addiction Medicine. After Fellowship, Dr. Beaman completed a Master's Degree in Pharmacology with an emphasis in Forensics at the University of Florida. He also obtained a Master's in Public Health from Johns Hopkins University.

Presentation Abstracts and Objectives

"Adolescent Suicide Trends and Risk Assessment" — *Swapna Deshpande, MD, FAPA*

Objectives: At the end of this activity, the participants should be able to:

- Describe the epidemiology of adolescent suicide.
- Explain features of risk assessment for suicide in adolescents.
- Use understanding of risk factures in treatment planning.

Abstract: Suicide is devastating and impacts everyone in far reaching ways. Suicide is the third leading cause of death among 10 to 19-year-olds. In recent years suicide rates have increased by 28%. Risk assessment in suicidal children is complex and involves many components. Good risk assessment is crucial in determining the course of treatment planning. The presentation will describe various aspects of a comprehensive risk assessment.

"Neurobiology of Suicide" — *Ashley Walker, MD*

Objectives: At the end of this activity, the participants should be able to:

- Describe the clinical relevance of neuroscience to suicidality.
- Integrate neuroscience aspects of suicidality into a comprehensive case formulation.
- Name potential biomarkers for suicide.

Abstract: Globally about one person dies every 40 seconds by suicide. A thorough suicide risk assessment by a trained mental health professional remains the gold standard for determining risk and subsequent treatment decisions. While clinicians may become proficient in naming the factors that contribute to suicide risk, knowledge of why these factors contribute has been lacking until recent times, when neuroscience research has begun to illuminate the pathophysiology of suicide. This presentation will explore our burgeoning understanding of the neuroscience related to the risk factors, pathology, and potential biomarkers and treatments related to suicide.

"Treatment Approaches to Suicidal Adolescents" — *Sara Coffey, DO, FAPA*

Objectives: At the end of this activity, the participants should be able to:

- Identify the risk factors of suicide in adolescents.
- Review the research on treating suicide in adolescent patients.
- Develop a safety plan for suicidal adolescents.

Abstract: Suicide remains one of the leading causes of death in individuals aged 15-24 years of age. More recently there have been concerns of rising suicidal risk in young girls. This trend is alarming and with suicide continuing to remain as a leading cause of death in young people a systemic and thoughtful approach is indicated to treat this growing trend. We know that untreated depression is a contributing risk factor for suicide; yet most of the youth with depression go untreated, and a large majority receive treatment in primary care. Looking towards evidence- based care models and integrated care approaches is one way to address this growing need.

"Substance Use and Suicide" — *Jason Beaman D.O., M.S., M.P.H., FAPA*

Objectives: At the end of this activity, the participants should be able to:

- Explain how to evaluate suicide in the context of substance use.
- Describe the association between substance use and suicide risk.
- Identify how to treat substance use disorders in patients at risk for suicide.

Abstract: This presentation will review the relationship between substance use and suicide. Mental illness is a large risk factor for suicidal ideation, suicide attempts, and suicide mortality. The misuse of substances can increase suicide. This presentation will review the criteria for the diagnosis of substance use disorders, the association between substance use and suicide risk, and how physicians can identify patients most at risk for suicide.

"Physician Suicide: Why the Increase and Why Now?" — *Swapna Deshpande, MD, FAPA*

Objectives: At the end of this activity, the participants should be able to:

- Describe the epidemiology, causation, and risk factors of physician completed suicides.
- Describe physicians and their world, workplace, and work-home balance stressors.
- Examine the defects in how physicians are treated and what can be done about it.

Abstract: Higher suicide rates have been documented among physicians for decades. In a Norwegian office mortality study (1960-2000), physicians had lower all-cause mortality rates compared with other professionals; however, physicians specific cause mortality rates due to suicide remained higher than non-physicians. Suicide primarily occurs as a combination of three factors: unbalanced mental state, unbearable social situation, and easy access to suicide methods.

In the United States, physician suicide data from *National Violent Death Reporting System* (NVDRS) reported mental illness as an important factor for completed physician suicides. The physician suicide victims have reported "job problem" as a stressful situation and the preferred access of method for suicide was firearms. Given the higher suicidal rates among physicians and its impact on community, it is very important for psychiatrists to understand the clinical picture and complexities of physician suicide. The presentation will help practitioners to understand the epidemiology, causation, and risk factors of physician completed suicides and gain knowledge about workplace and work-home balance stressors.

Interactive Symposium: *"360° View, Challenges, Discussion"* — *Moderator Swapna Deshpande, MD, FAPA*

Objectives: At the end of this activity, the participants should be able to:

- Discuss comprehensively the bio-psychosocial and neuroscientific findings leading to suicides and causes for the recent increased rate of suicides in the population addressed in this seminar.
- Present clinical vignettes from their own professional encounters with patients who completed suicide and discuss what may have been done differently to prevent suicide.
- Execute a plan of action to address substance abuse issues in patients at all levels of care and in all treatment settings to give insight to their patients about the importance of recognizing how substance abuse helps increase the chances of completing suicides.

Abstract: This is an interactional session for audience participation with Q/A and comments by the participants leading to responses to these by respective panelists. The moderator will attempt to cover all the aspects of the increased rate of suicides in adolescents and physicians with focus on material presented earlier by all faculty. She will encourage audience participation.

Laureate
Psychiatric Clinic and Hospital

A part of Saint Francis Health System

*The psychiatric physician members of the **Oklahoma Psychiatric Physicians Association**, a district branch of the American Psychiatric Association, would like to sincerely thank the administration and staff of*

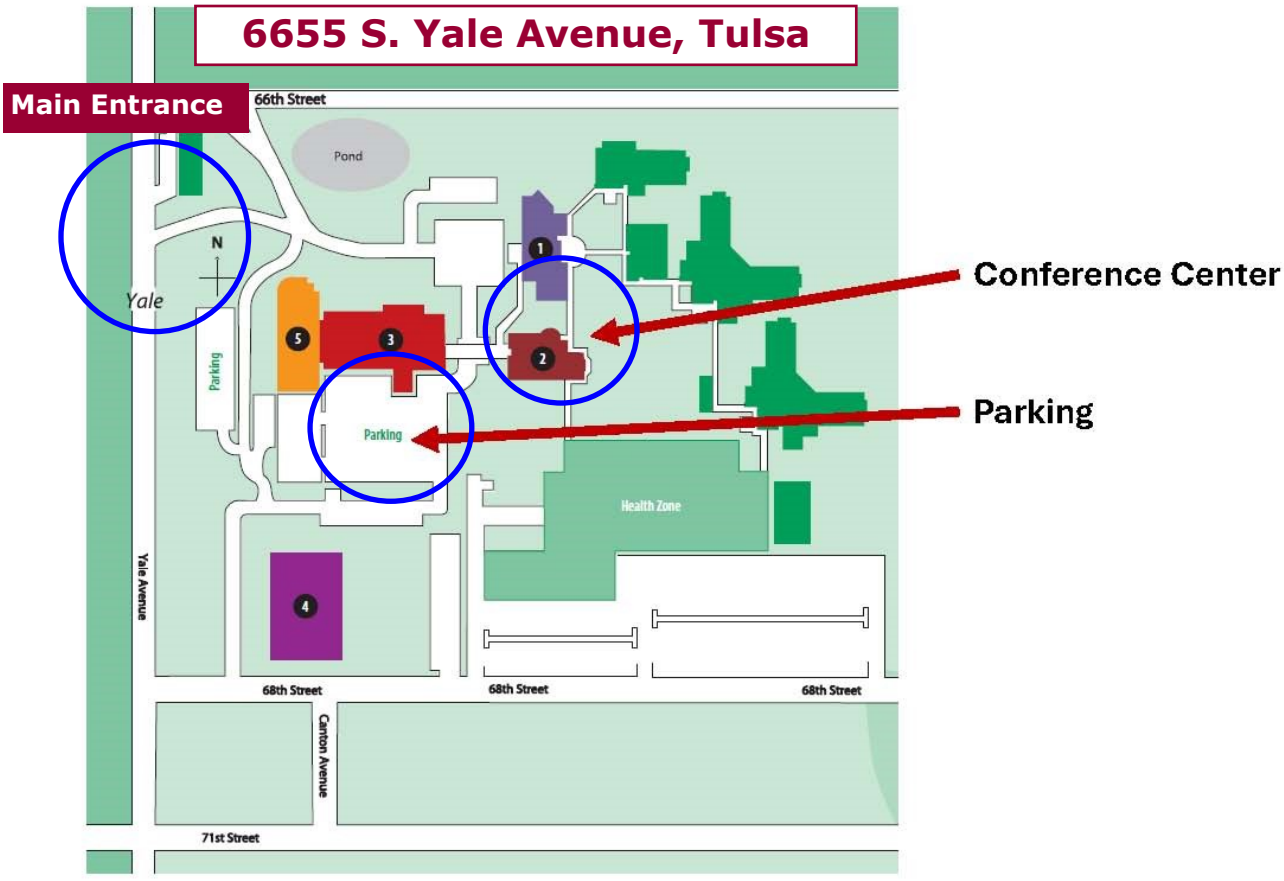
***Laureate Psychiatric Clinic and Hospital**,*

a part of Saint Francis Health System, for the generous support and sponsorship through the use of the hospital's Conference and Banquet Center on Saturday, April 20, 2024.

Your hospitality and community spirit allowed the participation in our Continuing Medical Education conference to exceed expectations. Your state of the art facility creates an environment especially conducive to educational experiences. Our members thank you so much for allowing us to experience your beautiful facility.

— Tessa Manning, M.D., President

6655 S. Yale Avenue, Tulsa



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OPPA Thanks Our EXIBITORS

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Scott Mullins
Financial Advisor

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LifeStance HEALTH

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OKLAHOMA PSYCHIATRIC PHYSICIANS ASSOCIATION

2024 Suicide Seminar Symposium

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Questions??

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Suicide in Children and Adolescents: A Systematic Approach

Swapna Deshpande, MD, DFAACAP

Associate Clinical Professor

Department of Psychiatry, Oklahoma State University

Lead Pediatric Psychiatry Project Echo and Co-lead Heal the Healer Project Echo

Board Certified Adult Psychiatry (since 2009)

Board Certified in Child and Adolescent Psychiatry (since 2010)

Board Certified in Obesity Medicine (since 2020)

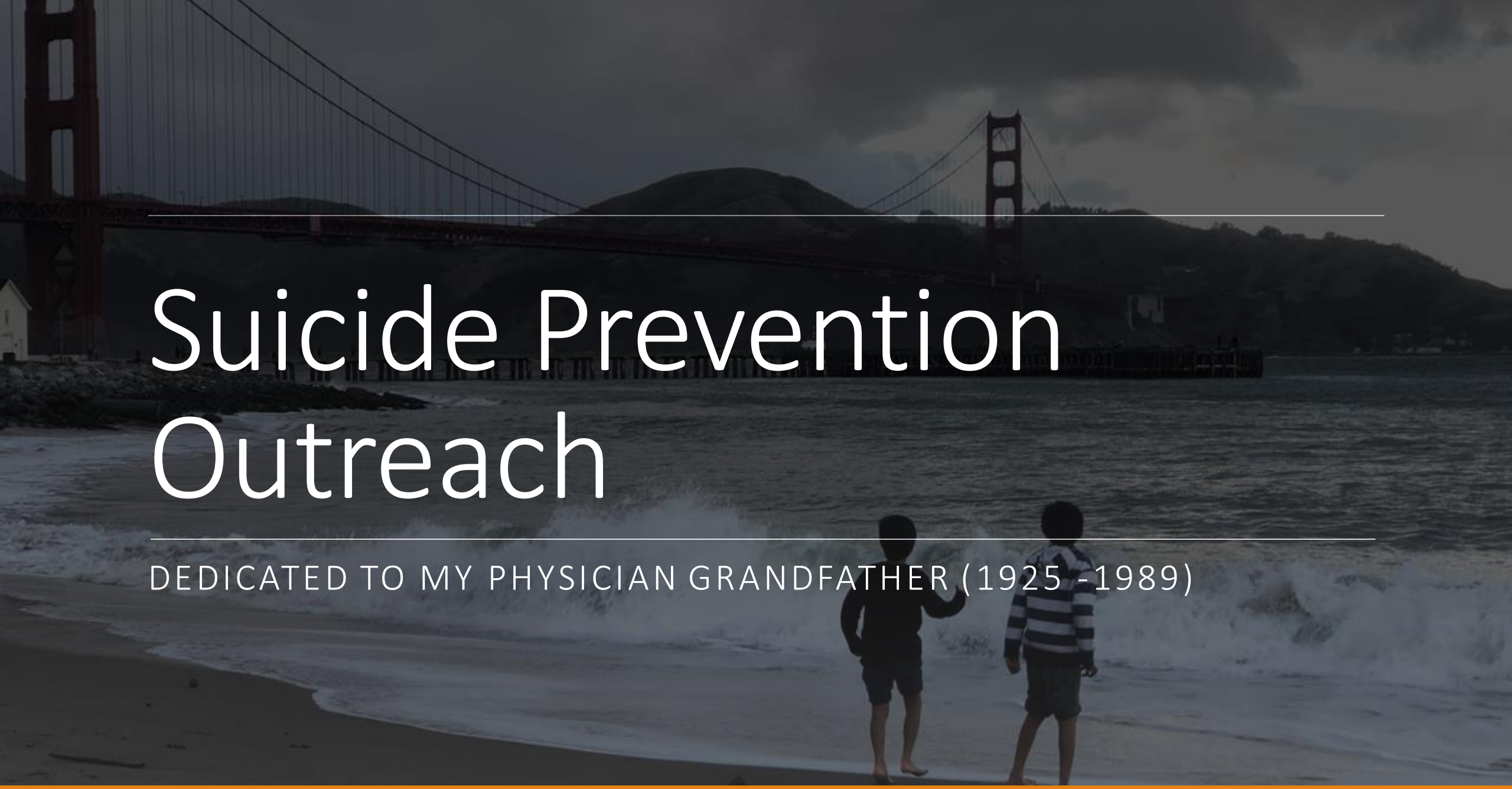
Fellow American Psychiatric Association (FAPA, awarded 2014)

Distinguished Fellow American Academy of Child and Adolescent Psychiatry (DFAACAP, awarded 2020)

Past President, Oklahoma Child and Adolescent Psychiatry Council (2018-2021)

Disclosures

I HAVE NO RELEVANT FINANCIAL RELATIONSHIPS OR AFFILIATIONS WITH COMMERCIAL INTERESTS TO DISCLOSE.



Suicide Prevention Outreach

DEDICATED TO MY PHYSICIAN GRANDFATHER (1925 -1989)

Professional Practice Gap

There exists a gap between evidence-based approaches to suicide prevention and its implementation in clinical care. This presentation will address this gap.

Learning Objectives

Describe	Describe the epidemiology of Adolescent Suicide.
Explain	Explain features of risk assessment for suicide in adolescents.
Describe	Describe current literature on effective interventions to address suicide in adolescents.
Describe	Describe the Suicide Risk Assessment in Child Checklist (SRACC) tool to guide suicide assessments

Learning Objectives

01

Describe the epidemiology physician Suicide and Mood disorders

02

Describe the physician burnout and moral injury

03

Discuss the risk factors for suicide and depression in physicians

04

Describe interventions and resources on Mindfulness, Self Compassion, Resilience enhancement.

Internet Searching

Taiwan Internet Search Study

Done over 5 years

Heavily cited and well done

Searches Pro and against studied

Pro suicide searches correlated to higher suicides

(Tsai SJ, 2011)

Objective 1: Describe the Epidemiology of Adolescent Suicide.

Major public health issue

48% of the population knew at least one person who died by suicide in their lifetime.

People with **lived experience** may suffer long-term health and mental health consequences.

(Stone, CDC 2017)

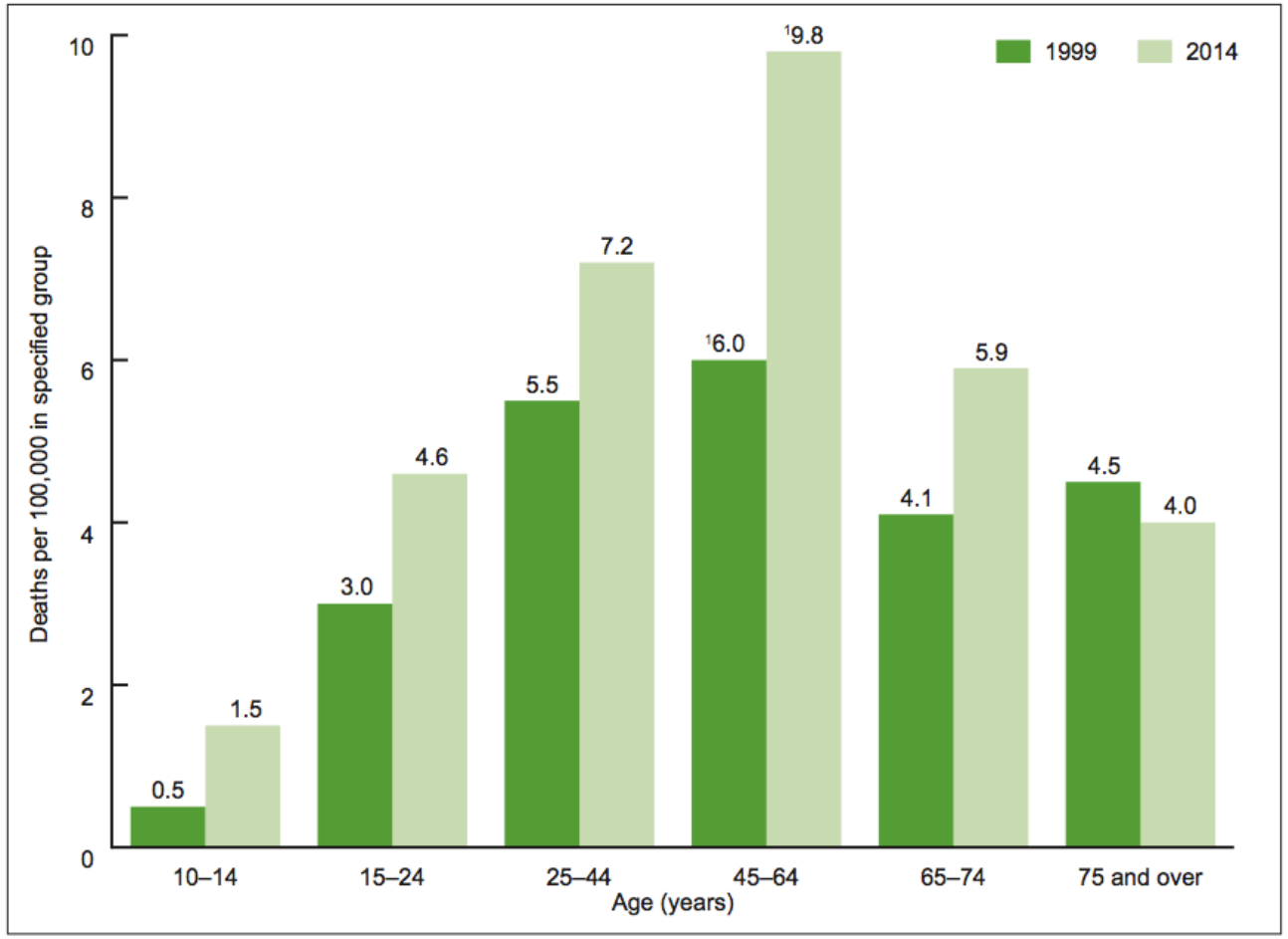
Suicide : 10th leading cause

In 2015, suicide ranked as the **10th leading cause** of death and has been among the top 12 leading causes of death since 1975 in the U.S.

Overall suicide rates increased **28%** from 2000 to 2015.

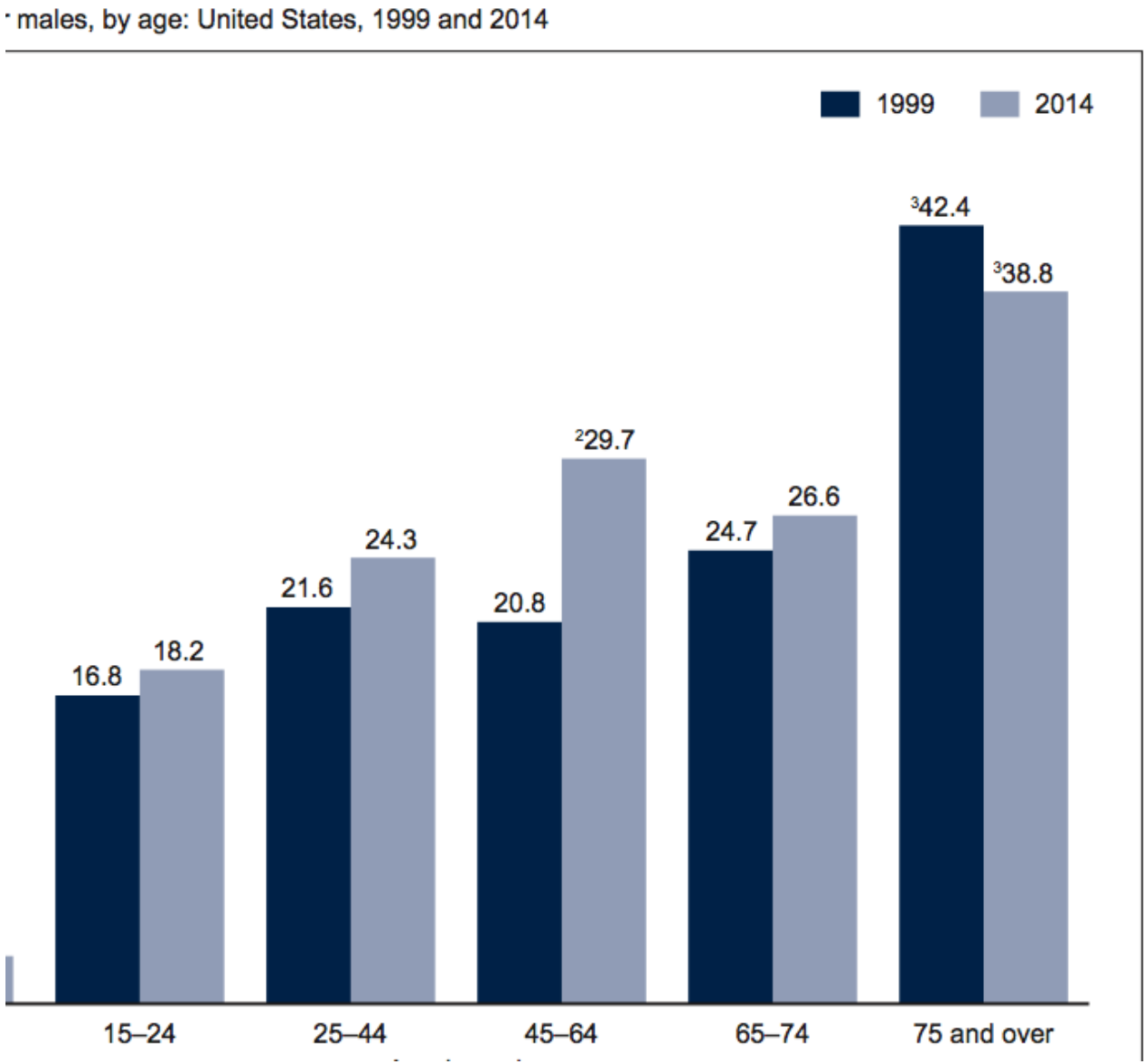
(Stone, CDC 2017)

Figure 2. Suicide rates for females, by age: United States, 1999 and 2014



Female Suicides : 1999 vs. 2014

NCHS DATA, 2016



Male Suicides : 1999 vs. 2014

NCHS DATA, 2016

Age correlation for Children

Third leading cause of death (10-19 years)

Rare before puberty related to cognitive maturity, inability to plan

Peak between 19 to 24

Youth Risk Behavior Surveillance System Survey (YRBSS)

CDC, 2015

Suicide ideation / attempt	Percentage of Adolescents
Ideation	17.7%
Plan	14.60%
Attempt	8.50%
ER/ Med visit	2.90%

Review: Neurobiological markers

Could predict risk, guide prevention, become treatment target

Lower Grey Matter Volume in specific regions

Emotional Stimuli marker OFC/ ACC

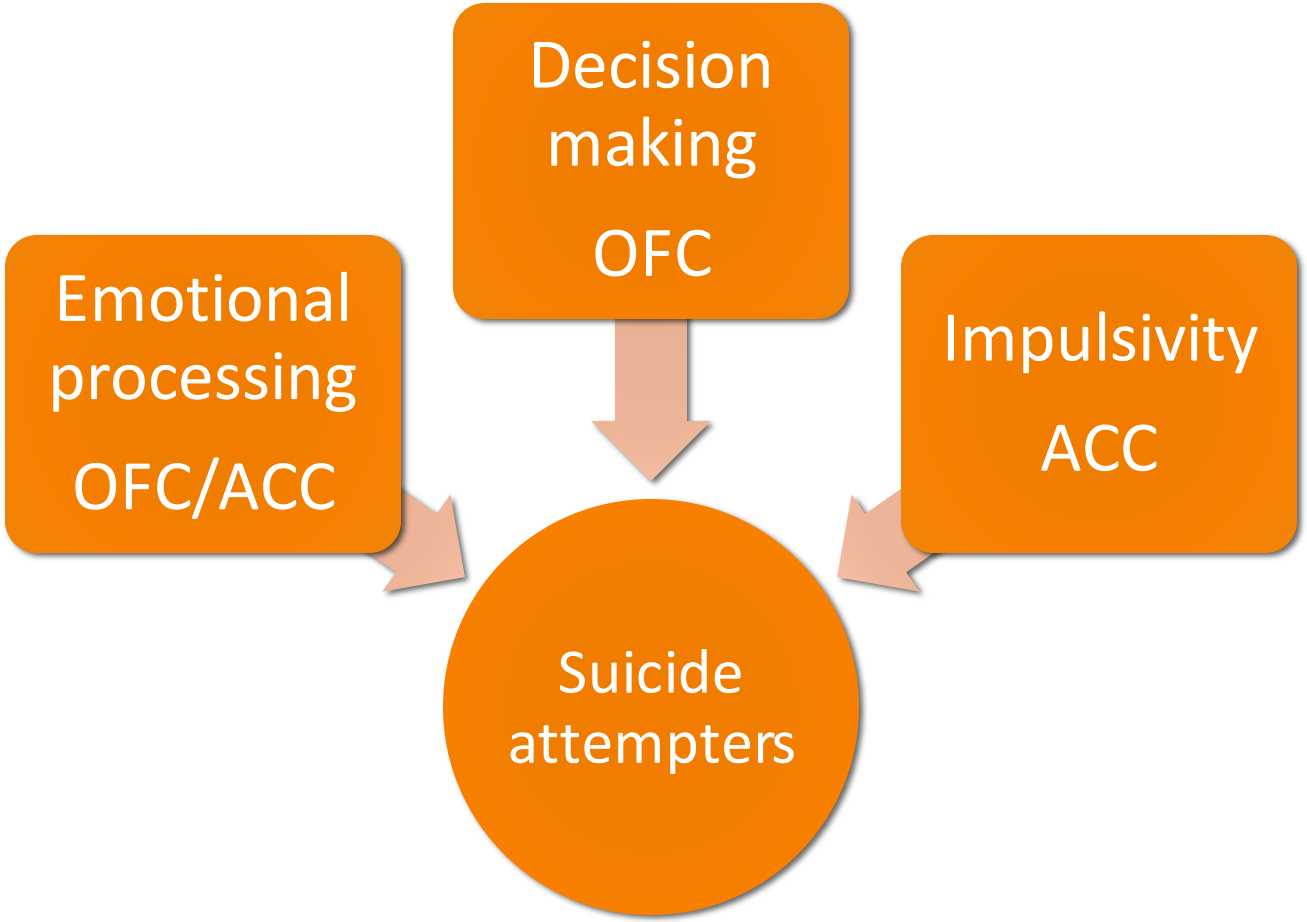
Altered decision making (FMRI study) marker

Lower Occipital and Orbitofrontal Activation

Impulsivity (FMRI) marker Anterior Cingulate Cortex

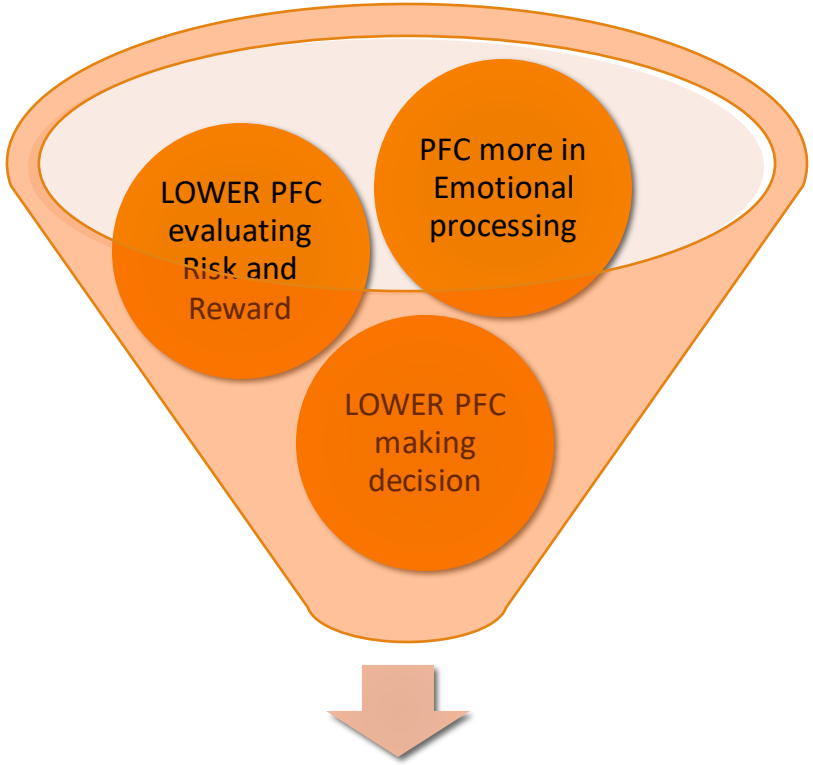
(Sudal, 2017)

Neurobiological markers in Suicide Attempters



(Sudal, 2017)

Pre Frontal Cortex Abnormalities



Impaired Top down

Inflammation

There are strong connections to inflammatory states and suicidality in adults.

Several disorders with heightened inflammatory state such as thallesiamia have increased rate of suicide attempts.

Brundin, 2017.

Risk factors

- Societal
- Community
- Relationships
- Individual

Risk factors: Individual level

- History of depression and other mental illnesses
- Previous suicide attempt, NSSI
- Impulsivity
- Hopelessness
- Substance abuse
- Comorbid health conditions
- Violence, victimization and perpetration
- Genetic and biological determinants

Risk factors: Relationship Level

- High conflict relationships
- Sexual Abuse
- Trauma history
- Sense of isolation
- Lack of social support
- Academic struggle
- Bullying

Risk factors: Community Level

- Inadequate community connectedness
- Barriers to health care (e.g., lack of access to providers and medications)
- Living in violent neighborhoods
- Media Exposure

World Health Organization Media Guidelines

Educate	Educate the public about suicide
Avoid	Avoid content that sensationalizes or normalizes suicide, or presents it as a solution to problems
Avoid	Avoid prominent placement and undue repetition of stories about suicide
Avoid	Avoid explicit description of the method used in a completed or attempted suicide
Avoid	Avoid providing detailed information about the site of a completed or attempted suicide
Phrase	Word headlines carefully
Be Cautious	Exercise caution in using photographs or video footage

World Health Organization Media Guidelines

Take	Take particular care in reporting celebrity suicides
Show	Show due consideration for people bereaved by suicide
Provide	Provide information about where to seek help
Recognize	Recognize that media professionals themselves may be affected by this

Risk factors: Societal Level

- Availability of lethal means of suicide
- Unsafe media portrayals of suicide
- Stigma associated with help-seeking and mental illness

Suicide Risk Assessment Checklist in Children (SRACC)

Teaching tool for thorough evaluation

Tool serves to organize and cue the examiner

Elements of history (HPI, medical, family, social)

Elements of acute event (Precipitant, SA)

Elements of MSE

Protective factors

Suicide Risk Assessment Checklist for Children (SRACC) Swapna Deshpande, MD, FAPA, DFAACAP			
Psychiatric and Medical History	**Precipitant**	**Mental Status**	**Social History**
1) Prior suicide attempt	1) Recent loss(es)	1) Hopeless	1) Limited social support for family
2) Past psychiatric disorder	2) Academic problem(s)	2) Anger	2) Academic difficulty (grades, behavior, attendance)
3) Past psychiatric hospitalization	3) Disciplinary problem(s)	3) Belief that things would be better for self or others if dead	3) History of being bullied
4) Current psychiatric symptoms or disorders	4) Legal problem(s)	4) Wish to join a dead loved one	4) Problems related to sexual orientation
5) Current or past mental health treatment	5) Loss/restriction of electronics	5) Low self esteem	5) Access to means, especially guns
6) Current psychotropic medications	6) Family conflict	6) Psychotic symptoms	**Family History**
7) History of non-suicidal self-injury	7) Interpersonal/peer problems	**Protective factors**	1) Family history of suicide
8) History of physical/sexual abuse	8) Other	1) In mental health treatment	2) Family history of mental illness or substance abuse
9) History of trauma	**Nature of Attempt**	2) Good interpersonal/supportive peer relationships	3) Chronic conflict or discord
10) History of disciplinary/legal problems	1) Medical complication/ lethality of attempt	3) Family and/or social support and parent connectedness	4) Does not take child's problems seriously
11) Active alcohol and/or substance abuse	2) Perceived lethality	4) Community involvement eg, church	5) Poor interpersonal relationships
12) Impulsive behavior	3) Planned	5) Intact family	
13) Significant/chronic medical condition	4) Opportunity for rescue	6) Academic achievement	
Suicidal Ideation	5) Persistent wish to die/ regret at being rescued	7) Healthy	
1) Currently present	6) Regret attempt		
2) Frequency and duration			
3)Chronicity and pervasiveness			
4) Severity			
5) Current plan			
6) Current Intent			

Future risk ?

Adult Longitudinal Trajectory Suicidal thoughts and behaviors

Prospective Study n = 1420

Structured interviews 7 times from ages 9 to 16

Structured interviews 4 times from 16 to 30

Childhood STBs are a robust risk factor for adult suicidal thoughts and behavior.

(Goldston, 2015)

Evidence of Escalation

Prospective study of N=180

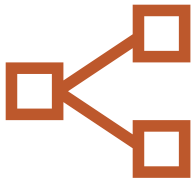
Time between successive attempts was reduced

Lethality increased with age

Breaking the cycle is important

(Goldston, 2015)

2. OBJECTIVE: EXPLAIN FEATURES OF RISK ASSESSMENT FOR SUICIDE IN ADOLESCENTS.



Suicidal ideation assessment

Risk Stratifying

Disposition

Treatment

Psychiatric Components

Structured/ Semi-structured Interviews

KSADs (Kiddie Schedule for Affective Disorders)

CAPA (Child and Adolescent Psychiatric Assessment)

DISC (Diagnostic Interview Schedule for Children)

DICA (Diagnostic Interview for Children and Adolescents)

(Goldston, 2003)

Suicidal Ideation Assessment

Suicidal Ideation Questionnaire

Risk of Suicide Questionnaire

Children's Depression Rating Scale (CDRS)

Beck Depression Inventory Suicide Item

Children’s Depression Inventory

Columbia Suicide Rating Scale

https://suicidepreventionlifeline.org/wp-content/uploads/2016/09/Suicide-Risk-Assessment-C-SSRS-Lifeline-Version-2014.pdf

(Goldston, 2003)

Best Practice

1. More than 50 different instruments are available
2. Gold Standard : Good Clinical Assessment (Parent, Child and other if available)
3. Parents are often unaware of their children's thoughts

(Goldston 2015, Schaffer 2001)

Magic Ball !

Admit or not?

15 y/o WF from an intact family presents after overdose on “tylenol” .

Suicide Risk Assessment Checklist for Children (SRACC)

Swapna Deshpande, MD, FAPA, DFAACAP

Psychiatric and Medical History	Precipitant	Mental Status	Social History
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6) Current Intent			

3. Evidence based Interventions

DESCRIBE CURRENT LITERATURE ON EFFECTIVE INTERVENTIONS TO ADDRESS SUICIDE IN ADOLESCENTS.

Interventions

Universal

General public or to whole populations like School

Selected

Higher Risk with multiple risk factors

Indicated

Signs and Symptoms of Suicide Related Behaviors

Interventions

Universal

General public or to whole populations like School

Selected

Higher Risk with multiple risk factors

Indicated

Signs and Symptoms of Suicide Related Behaviors

Examples of Universal

Some population level interventions include :

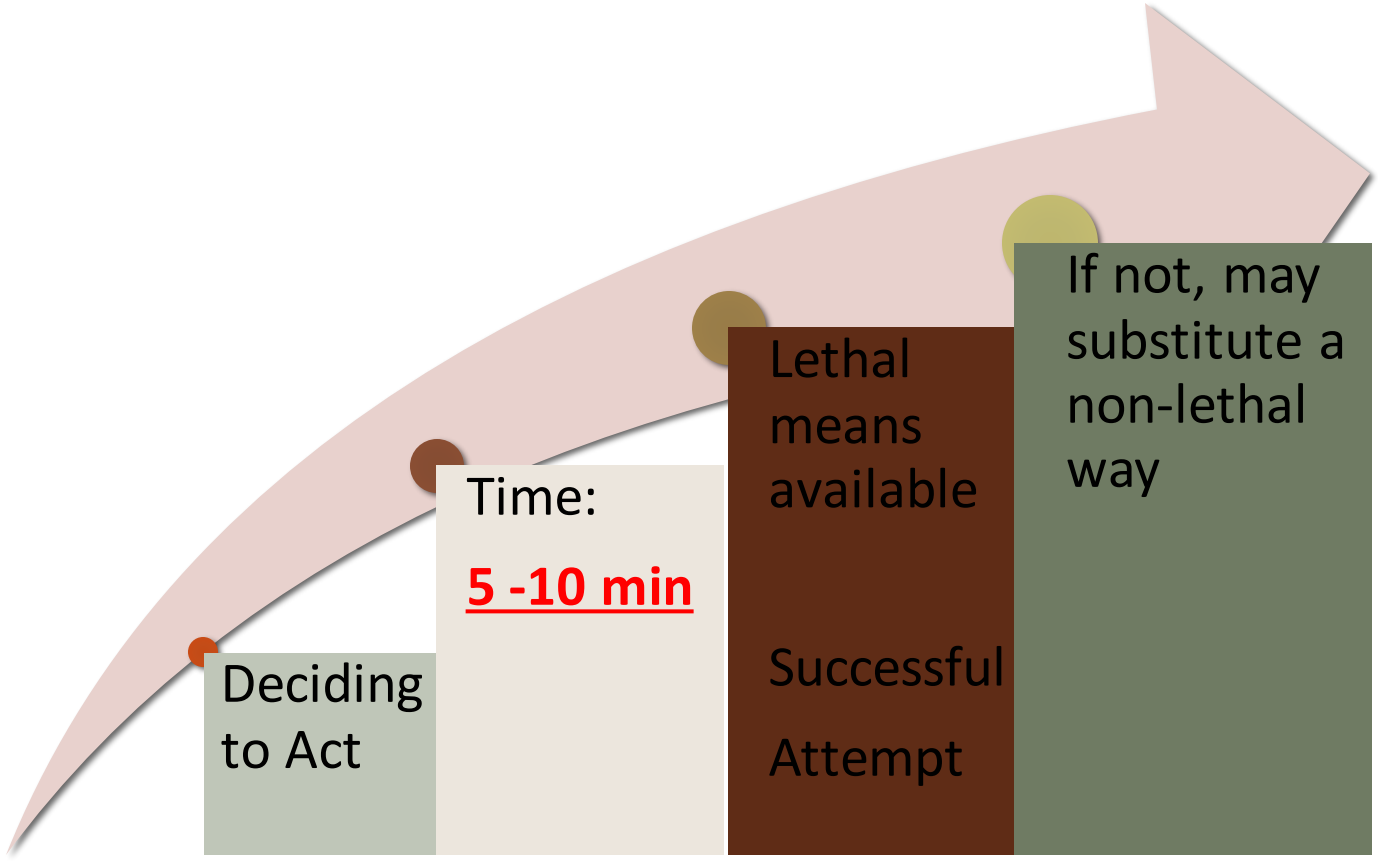
Promoting awareness

Improving media portrayals of suicidal behavior

School based educational programs

Reducing access to lethal means

Rationale for means reduction



Safe Storage Practices Counseling

Education and around storing firearms locked in a secure place (e.g., in a gun safe or lock box),

Unloaded and separate from the ammunition

Keeping medicines in a locked cabinet

Does this work?

Universal Intervention: Means reduction

Case-control study of firearm-related events

37 counties in Washington, Oregon, and Missouri, and from 5 trauma centers

Safe storage protective of adolescent suicides

OTC paracetamol packaging change in UK 2004

43% reduction or an estimated 765 fewer deaths over the 11¼ years after the legislation.

(CDC, 2017) (Hawton, 2013)

School based Intervention: Social-emotional learning program RCT

The Youth Aware of Mental Health Program (YAM)

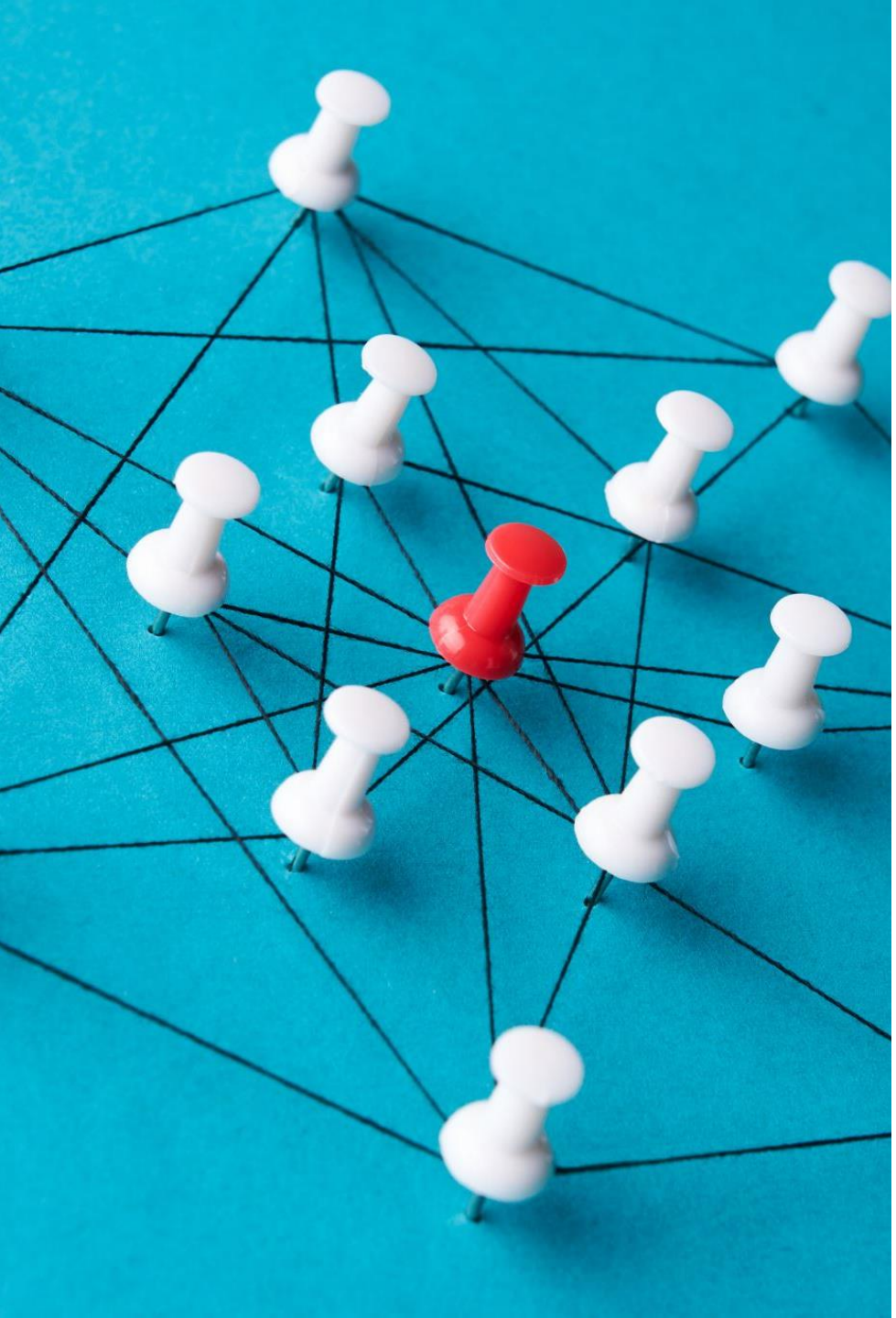
10 European Countries, 168 schools, n=1000

Interactive dialogue and role-playing

Increase knowledge and enhances their problem-solving

50% fewer attempts/ ideations at 1 year.

(Wasserman, Lancet, 2015)



Selected and Indicated interventions:

Medication Efficacy for Depressive Disorders

JAMA Psychiatry | Original Investigation

Efficacy and Safety of Selective Serotonin Reuptake Inhibitors, Serotonin-Norepinephrine Reuptake Inhibitors, and Placebo for Common Psychiatric Disorders Among Children and Adolescents

A Systematic Review and Meta-analysis

Cosima Locher, PhD; Helen Koechlin, MSc; Sean R. Zion, MA; Christoph Werner, BSc; Daniel S. Pine, MD; Irving Kirsch, PhD; Ronald C. Kessler, PhD; Joe Kossowsky, PhD, MMSc

IMPORTANCE Depressive disorders (DDs), anxiety disorders (ADs), obsessive-compulsive disorder (OCD), and posttraumatic stress disorder (PTSD) are common mental disorders in children and adolescents.

OBJECTIVE To examine the relative efficacy and safety of selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), and placebo for the treatment of DD, AD, OCD, and PTSD in children and adolescents.

Editorial

Supplemental content

Conclusions

Meta-analysis looked at 37 trials with 6778 participants

SSRIs are first line treatment for Depressive Disorders.

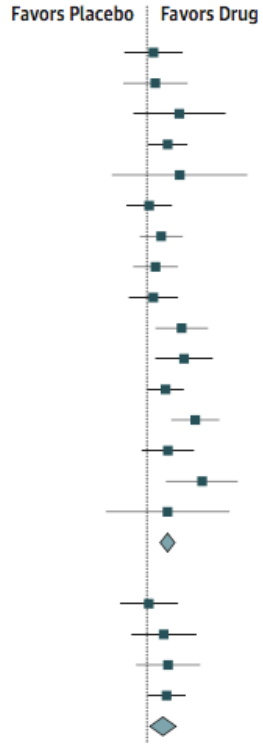
SSRIs and SNRIs are beneficial but effect sizes are much higher in anxiety disorders than depressive disorders

Lochner, JAMA, 2017

Depression: Effect sizes

Lochner, JAMA, 2017

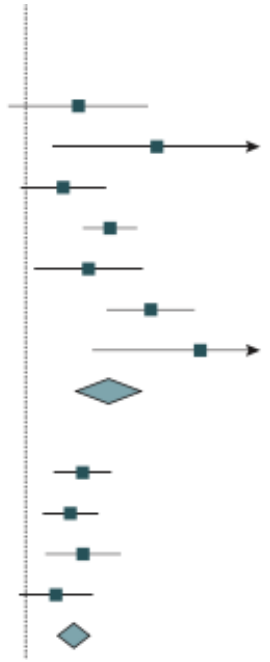
Source	Hedges *g*	SE (95% CI)
Depressive disorders		
SSRI		
Atkinson et al,[48] 2014	0.05	0.17 (-0.27 to 0.38)
Emslie et al,[49] 2014	0.07	0.19 (-0.29 to 0.44)
PIR112487,[47] 2011	0.34	0.27 (-0.18 to 0.87)
Emslie et al,[45] 2009	0.21	0.11 (-0.01 to 0.43)
Findling et al,[46] 2009	0.35	0.39 (-0.42 to 1.11)
von Knorring et al,[43] 2006	0.00	0.13 (-0.25 to 0.26)
Wagner et al,[23] 2006	0.14	0.12 (-0.10 to 0.38)
Berard et al,[41] 2006	0.08	0.13 (-0.18 to 0.33)
Emslie et al,[42] 2006	0.05	0.14 (-0.22 to 0.33)
Wagner et al,[22] 2004	0.37	0.15 (0.07 to 0.67)
March et al,[40] 2004	0.40	0.17 (0.07 to 0.72)
Wagner et al,[39] 2003	0.19	0.11 (-0.02 to 0.39)
Emslie et al,[38] 2002	0.52	0.14 (0.25 to 0.80)
Keller et al,[37] 2001	0.21	0.15 (-0.08 to 0.51)
Emslie et al,[36] 1997	0.60	0.21 (0.19 to 1.00)
Simeon et al,[35] 1990	0.21	0.36 (-0.49 to 0.91)
Subtotal	0.21	0.04 (0.13 to 0.29)
SNRI		
Atkinson et al,[48] 2014	0.00	0.17 (-0.33 to 0.33)
Emslie et al,[49] 2014[a]	0.17	0.19 (-0.20 to 0.54)
Emslie et al,[49] 2014[a]	0.22	0.19 (-0.15 to 0.58)
Emslie et al,[44] 2007	0.20	0.11 (-0.02 to 0.42)
Subtotal	0.16	0.08 (0.01 to 0.31)

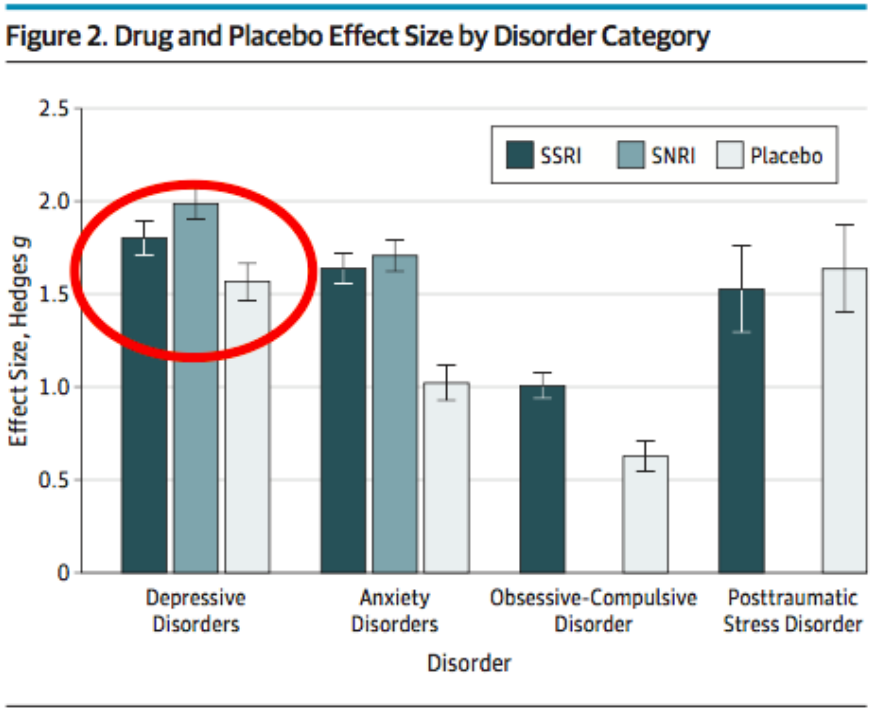


Anxiety Effect Sizes

Lochner, JAMA, 2017

Anxiety disorders		
SSRI		
Melvin et al,[59] 2017	0.47	0.31 (-0.14 to 1.07)
da Costa et al,[57] 2013	1.11	0.45 (0.23 to 2.00)
Walkup et al,[56] 2008	0.32	0.18 (-0.04 to 0.68)
Wagner et al,[53] 2004	0.72	0.18 (0.49 to 0.95)
Birmaher et al,[52] 2003	0.53	0.23 (0.08 to 0.99)
RUPP,[50] 2001	1.06	0.19 (0.69 to 1.43)
Rynn et al,[51] 2001	1.48	0.47 (0.56 to 2.39)
Subtotal	0.71	0.13 (0.45 to 0.97)
SNRI		
Strawn et al,[58] 2015	0.48	0.12 (0.24 to 0.73)
March et al,[54] 2007	0.38	0.12 (0.15 to 0.62)
Rynn et al,[55] 2007[b]	0.49	0.16 (0.17 to 0.81)
Rynn et al,[55] 2007[b]	0.26	0.16 (-0.05 to 0.57)
Subtotal	0.41	0.07 (0.27 to 0.54)





Depressive disorders: high placebo response

Severe Side effects

Increased Suicidality Odds Ratio 2.39

Increased suicidal ideation and actual attempts

Antidepressant vs Placebo 0.7%

(Bridge,2007) (Lochner,2107)

Psychosocial Interventions

How do they fare?

50 years of research on youth psychosocial therapy meta-analysis

447 Studies, 30,431

Effect Sizes

Strongest for Anxiety 0.61

Weakest for Depressive Disorders 0.29

Non-specific multiple problems 0.15

Hard to establish clinically relevant effect in pediatric depression.

(Weisz,2017)

2016 Self Harm Cochrane Review

11 trials, 1126 participants

Therapeutic assessment increased adherence (n = 70)

Mentalization therapy reduced Multiple SH (n = 71)

DBT- A – Reduced frequency, depression (n = 104)

No significant difference than TAU

- Home based family therapy (n=149)
- CBT based therapy (n=39)
- Group based therapy (n=430)
- Compliance enhancement (n=63)
- Provision of emergency cards (n=105)

Systematic review of psychosocial suicide prevention interventions for youth (2016)

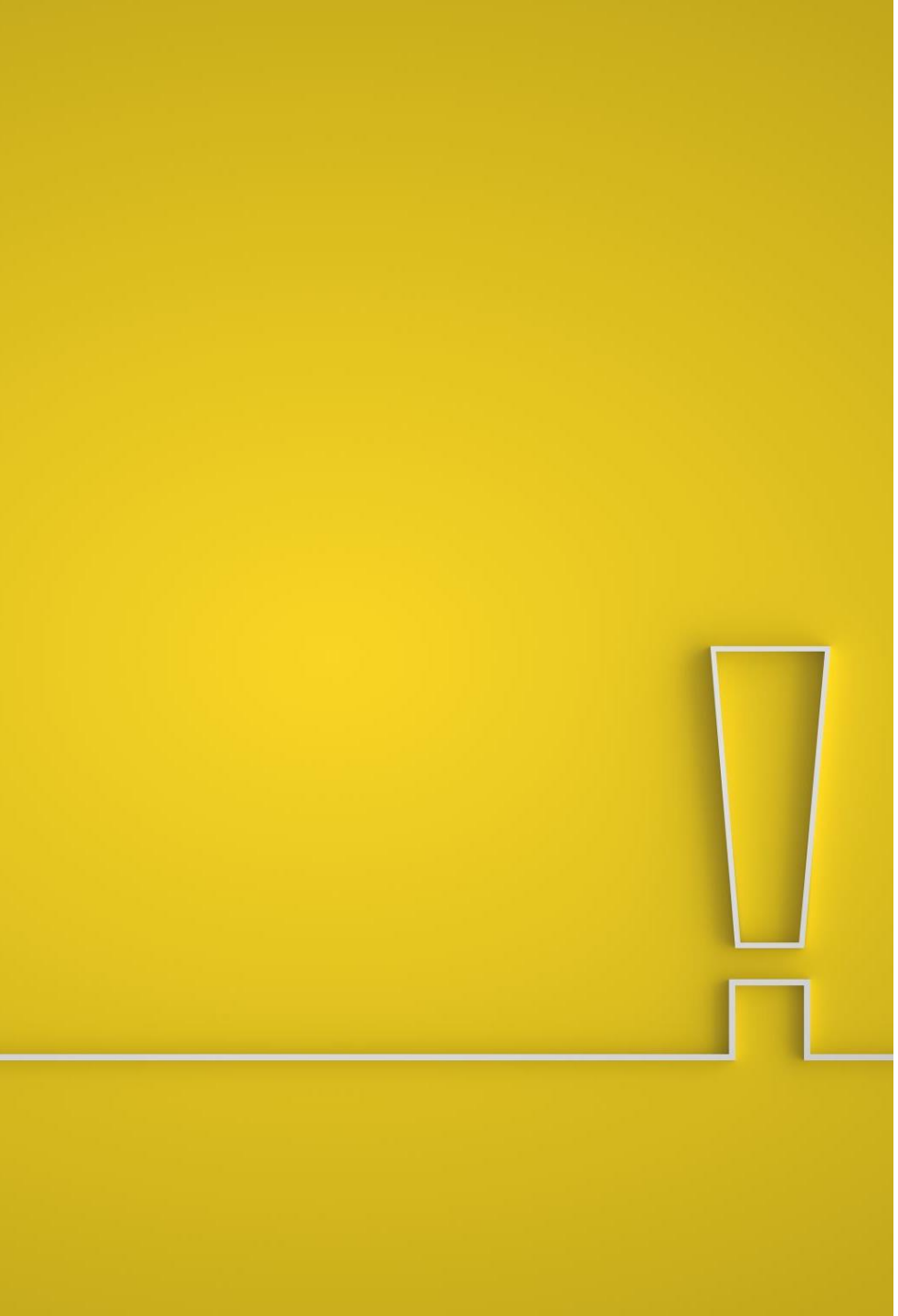
Number of studies included 28

Over half of the programs has significant effect size

Components:

Safety planning, psychoeducation, developing reasons for living and hope

Behavioral activation, cognitive restructuring, emotion regulation and distress tolerance techniques.



Systematic review of psychosocial suicide prevention interventions for youth (2016)

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Components

Safety planning, psychoeducation, developing reasons for living and hope,

Behavioral activation, cognitive restructuring, emotion regulation and distress tolerance techniques.

Indicated: Intervention Strategy

Example : Family Intervention for Suicide Prevention (FISP)

Brief youth and family crisis therapy session in ER

Has been adapted in other crisis settings

Asarnow, J. R., (2009).

FISP components

Reframing	Reframing the suicide attempt as a problem requiring action,
Educating	Educating families about the importance of outpatient mental health treatment
Restricting	Restricting access to dangerous attempt and methods
Obtaining	Obtaining a commitment from the youth to use a safety plan in future crises;
Strengthening	Strengthening family support by encouraging youths and parents to identify positive attributes of the youth and family;
Developing	Developing a hierarchy of potential suicidality triggers by using an “emotional thermometer” to identify feelings and physical, cognitive, and behavioral reactions to these triggers;
Developing	Developing and practice using a safety plan for reducing “emotional temperature”

FISP Components: Safety plan

- Safety plan card to provide a concrete tool
- Reasons for living and safe
- Adaptive coping
- Contacts

Indicated: Intervention Strategy

Example : Family Intervention for Suicide Prevention (FISP)

Brief youth and family crisis therapy session in ER

Has been adapted in other crisis settings

Asarnow, J. R., (2009).

Hope Box

Concrete objects to cue use of the coping strategies listed on the card

CDs or play lists of calming music

Scented bubble bath

Coping cards

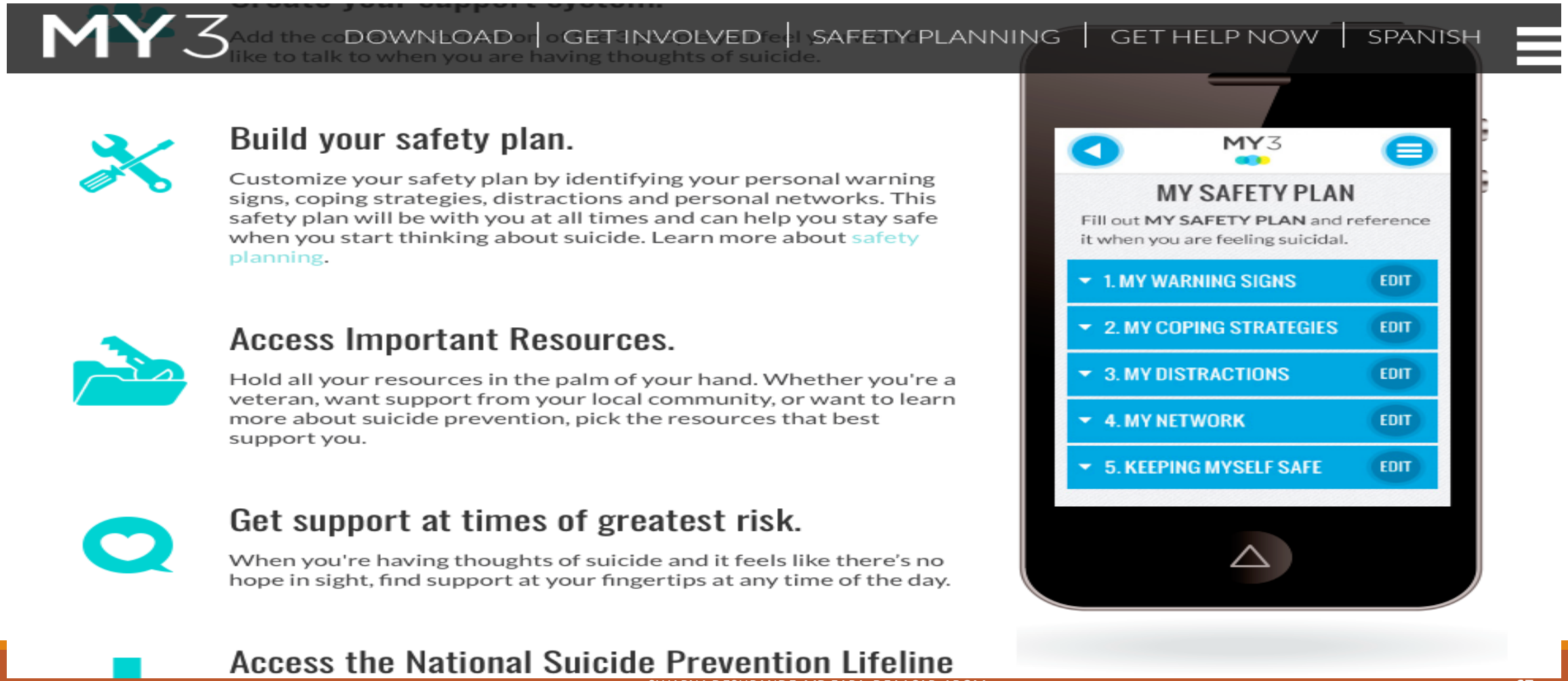
Resources for Indicated interventions : Apps

My 3 for Teen

A Friend Asks for friends

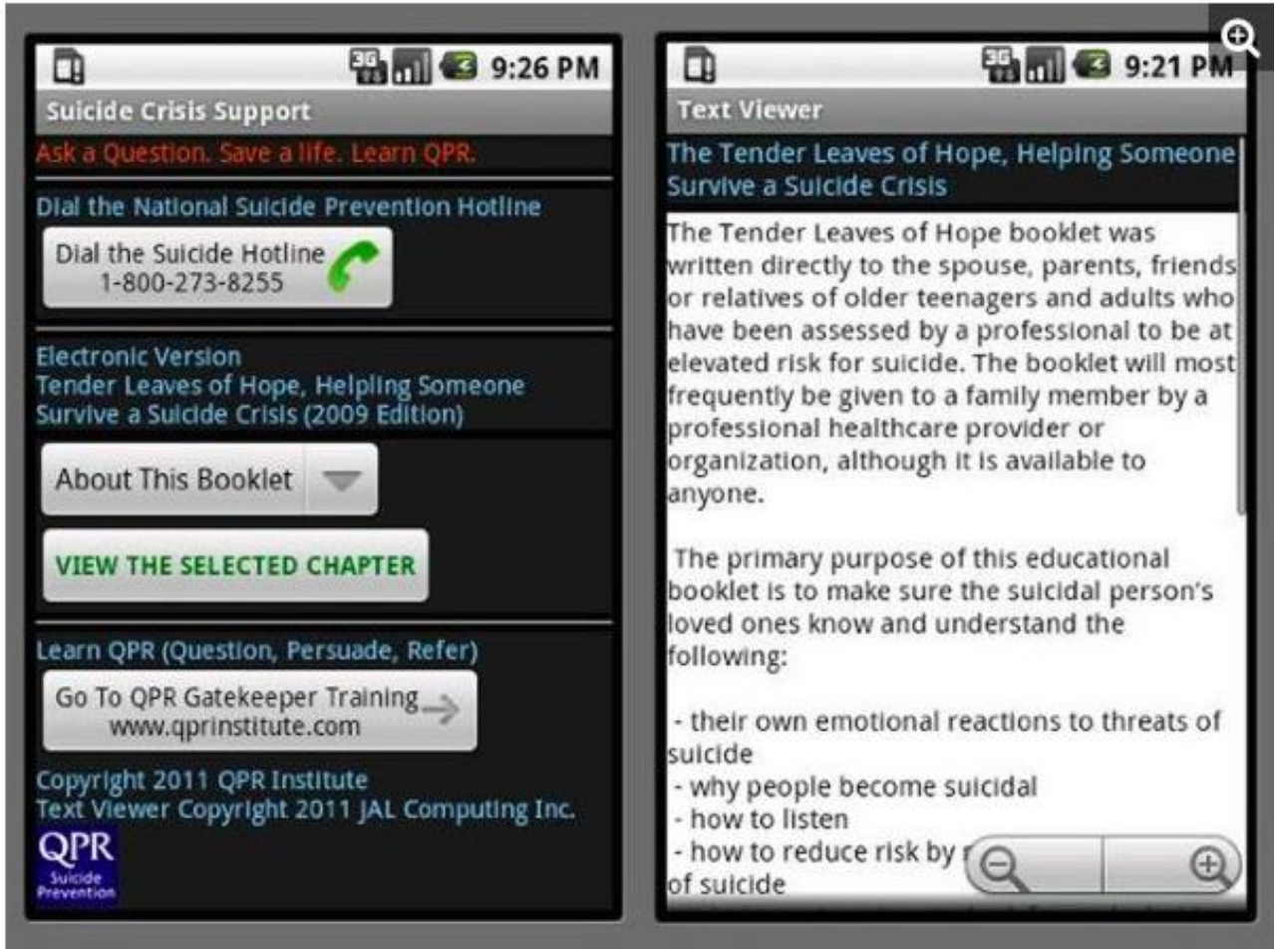
Suicide Crisis support for family

Resources for Indicated interventions : Apps



Jason Foundation: A Friend Asks (Android, iOS)

Suicide Crisis Support (Android)



Suicide Risk Assessment Checklist for Children (SRACC) Swapna Deshpande, MD, FAPA, DFAACAP			
Psychiatric and Medical History	**Precipitant**	**Mental Status**	**Social History**
1) Prior suicide attempt	1) Recent loss(es)	1) Hopeless	1) Limited social support for family
2) Past psychiatric disorder	2) Academic problem(s)	2) Anger	2) Academic difficulty (grades, behavior, attendance)
3) Past psychiatric hospitalization	3) Disciplinary problem(s)	3) Belief that things would be better for self or others if dead	3) History of being bullied
4) Current psychiatric symptoms or disorders	4) Legal problem(s)	4) Wish to join a dead loved one	4) Problems related to sexual orientation
5) Current or past mental health treatment	5) Loss/restriction of electronics	5) Low self esteem	5) Access to means, especially guns
6) Current psychotropic medications	6) Family conflict	6) Psychotic symptoms	**Family History**
7) History of non-suicidal self-injury	7) Interpersonal/peer problems	**Protective factors**	1) Family history of suicide
8) History of physical/sexual abuse	8) Other	1) In mental health treatment	2) Family history of mental illness or substance abuse
9) History of trauma	**Nature of Attempt**	2) Good interpersonal/supportive peer relationships	3) Chronic conflict or discord
10) History of disciplinary/legal problems	1) Medical complication/ lethality of attempt	3) Family and/or social support and parent connectedness	4) Does not take child's problems seriously
11) Active alcohol and/or substance abuse	2) Perceived lethality	4) Community involvement eg, church	5) Poor interpersonal relationships
12) Impulsive behavior	3) Planned	5) Intact family	
13) Significant/chronic medical condition	4) Opportunity for rescue	6) Academic achievement	
Suicidal Ideation	5) Persistent wish to die/ regret at being rescued	7) Healthy	
1) Currently present	6) Regret attempt		
2) Frequency and duration			
3)Chronicity and pervasiveness			
4) Severity			
5) Current plan			
6) Current Intent			

Approach to our patient

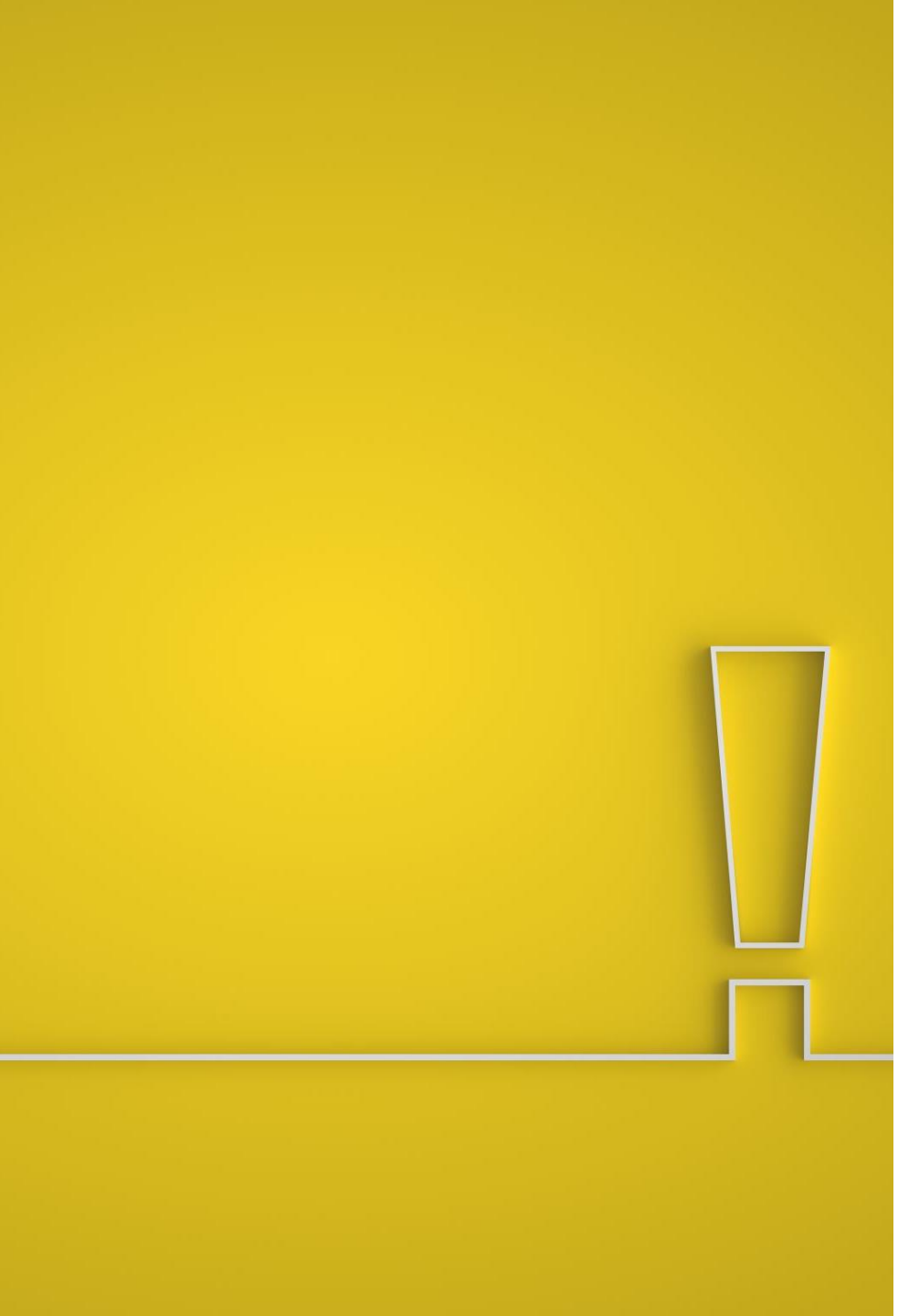
Acute Disposition (EOD/DHS as last resort)

Optimize medications

Engage supports: Family, friends and school

Psychotherapy

Intervene with media exposure, access to means, interpersonal conflicts



Conclusion and Clinical Pearls

Suicide is a major public health issue.

Risk Assessment and Interventions (Universal, selected and indicated) are often complex.

Using a standardized checklist such as SRACC can cue the examiner, guide assessments and make them more effective.

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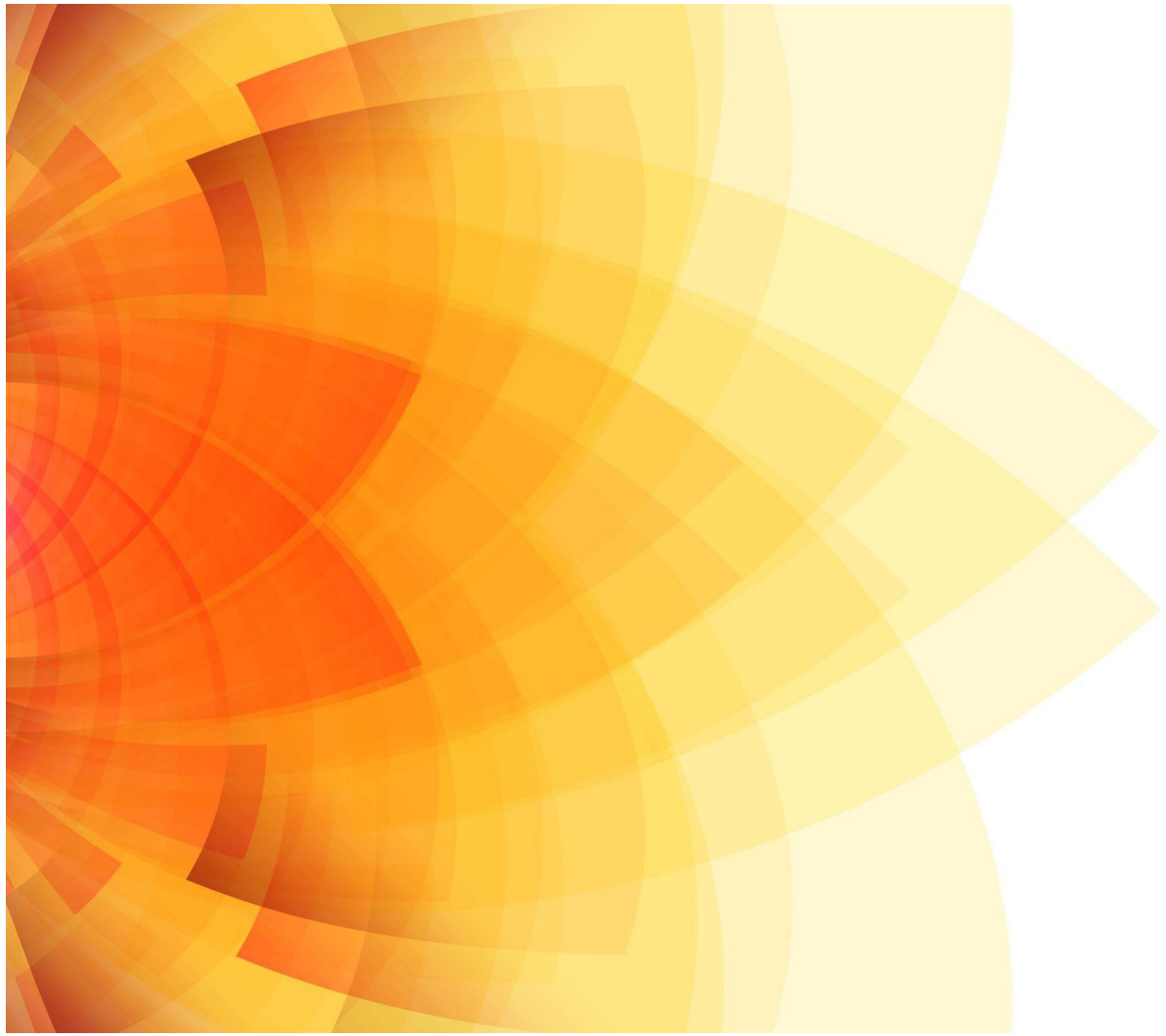

Suicide in Children and Adolescents: A Systematic Approach

Swapna Deshpande, MD, DFAACAP

Associate Clinical Professor

Department of Psychiatry, Oklahoma State University

Lead Pediatric Psychiatry Project Echo and Co-lead Heal the Healer Project Echo

Board Certified Adult Psychiatry (since 2009)

Board Certified in Child and Adolescent Psychiatry (since 2010)

Board Certified in Obesity Medicine (since 2020)

Fellow American Psychiatric Association (FAPA, awarded 2014)

Distinguished Fellow American Academy of Child and Adolescent Psychiatry (DFAACAP, awarded 2020)

Past President, Oklahoma Child and Adolescent Psychiatry Council (2018-2021)

Physican Wellness

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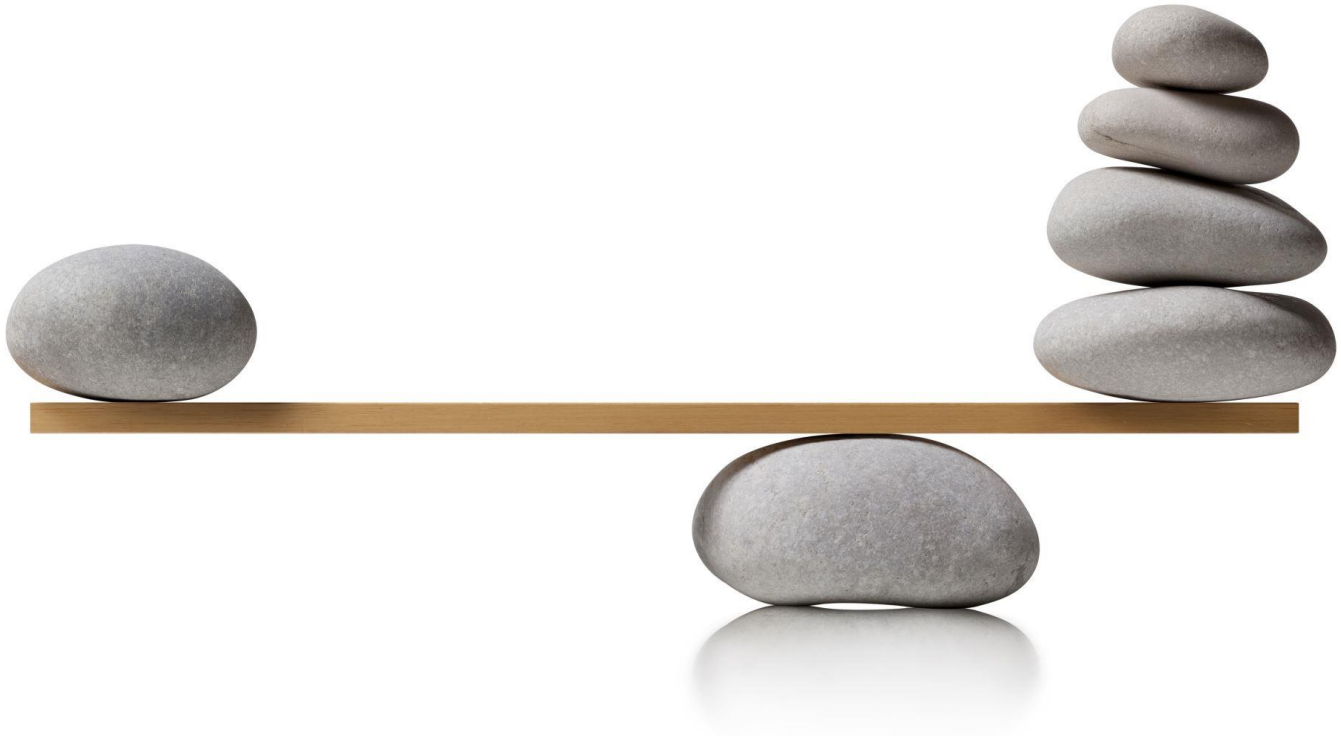
Disclosures

I HAVE NO RELEVANT FINANCIAL RELATIONSHIPS OR AFFILIATIONS WITH COMMERCIAL INTERESTS TO DISCLOSE.

Learning Objectives

- Define physician wellness, describe the Stanford model
- Describe the physician burnout and moral injury
- Describe suicide rates in physicians
- Describes key aspects of self-compassion
- Provide resources on Wellness

Define Wellness



Definition

Physician wellness (well-being) is defined by quality of life

- absence of ill-being
- presence of positive physical, mental, social,
- integrated well-being experienced in connection with activities and environments
- allow physicians to develop their full potentials
- across personal and work-life domains.

Brady, Keri JS, et al. "What do we mean by physician wellness? A systematic review of its definition and measurement." *Academic Psychiatry* 42 (2018): 94-108.

Physician wellness and Quality of health care

Lancet

Physician wellness: a missing quality indicator

Jean E Wallace, Jane B Lemaire, William A Ghali

Lancet 2009; 374: 1714–21

See **Editorial** page 1653

Department of Sociology, Faculty of Social Sciences (Prof J E Wallace PhD), **Department of Medicine, Faculty of Medicine** (Prof J B Lemaire MD, Prof W A Ghali MD), **and Department of Community Health Sciences, Faculty of Medicine** (Prof W A Ghali),

When physicians are unwell, the performance of health-care systems can be suboptimum. Physician wellness might not only benefit the individual physician, it could also be vital to the delivery of high-quality health care. We review the work stresses faced by physicians, the barriers to attending to wellness, and the consequences of unwell physicians to the individual and to health-care systems. We show that health systems should routinely measure physician wellness, and discuss the challenges associated with implementation.

Introduction

> "Healthy citizens are the greatest asset any country can have."
>
> *Sir Winston Churchill*

review the potential consequences of self-neglect by physicians, both individually and at the level of health-care systems. We also address why health systems should routinely measure physician wellness as an

Unwell physicians negatively affect health-care systems

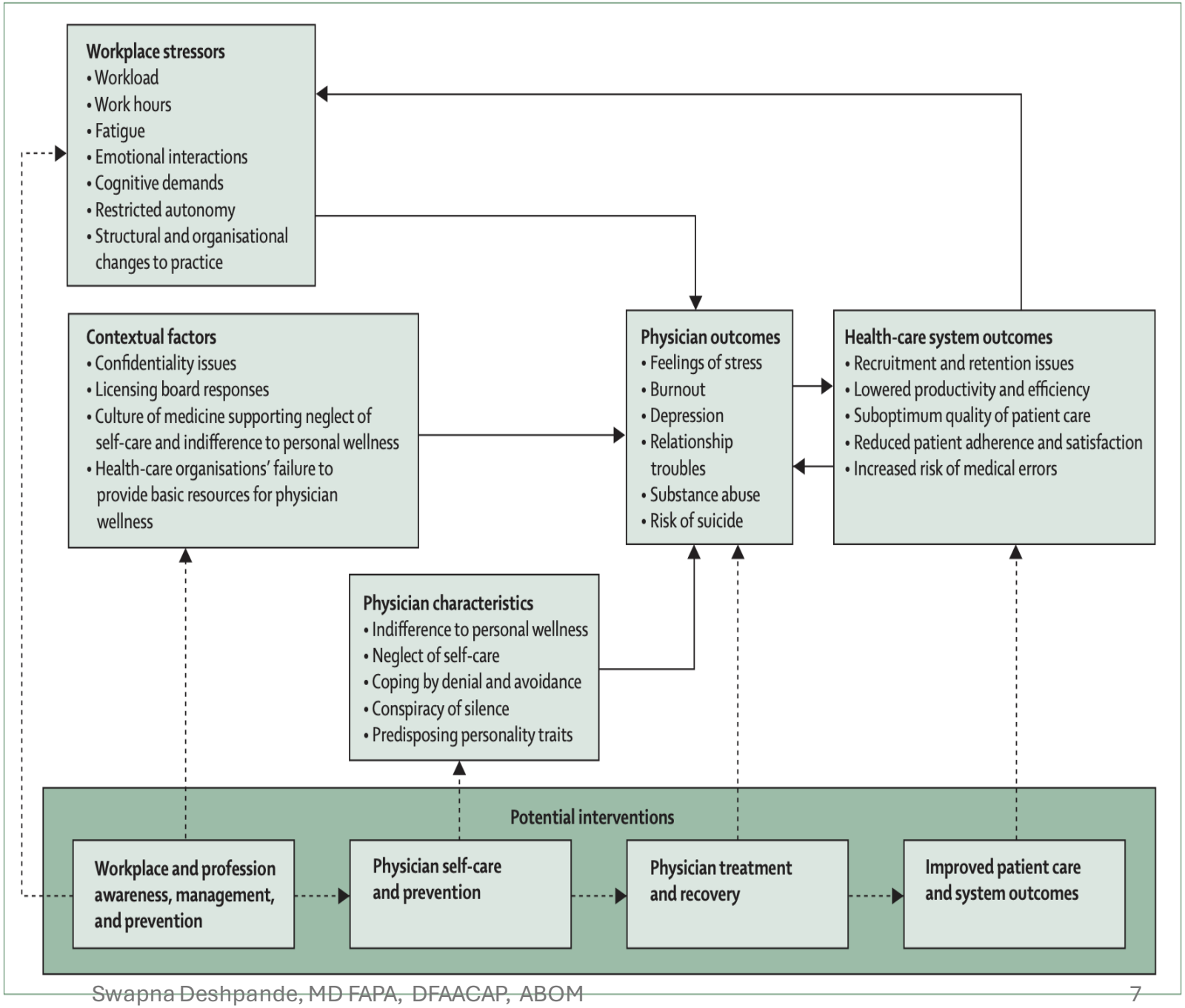
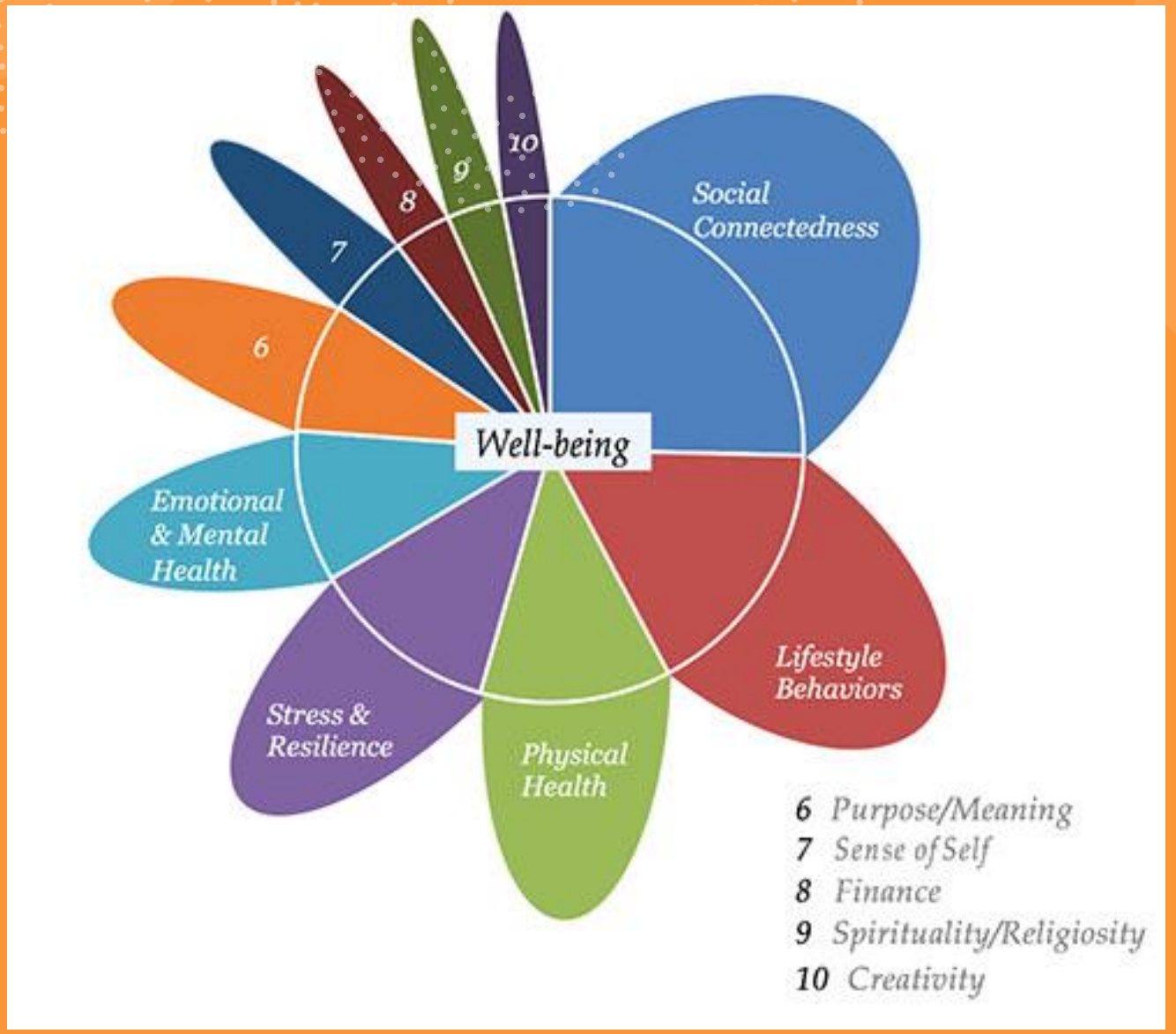


Figure: A model of physician ill health and the links with health-care system outcomes, and potential interventions to improve physician and system outcomes

Figure Health professional wellness hierarchy.

"Beyond burnout: a physician wellness hierarchy designed to prioritize interventions at the systems level." *The American journal of medicine* 132.5 (2019): 556-563.

Stanford BeWell Model



The Stanford Model of Professional Fulfillment™

The premise that promoting professional fulfillment and mitigating burnout requires organization-wide change is foundational to the work of the WellMD & WellPhD Center. Our Stanford Model of Professional Fulfillment™ illustrates that framework, showing that well-being is driven not only by individual Personal Resilience but also through an organization's dedication to fostering a Culture of Wellness and Efficiency of Practice.

Culture of Wellness

This dimension describes the organizational work environment, values and behaviors that promote self-care, personal and professional growth, and compassion that physicians and scientists have for themselves, their colleagues and their patients and beneficiaries of their innovations.

Key success factors of this dimension include:

- Leadership support, commitment, and accountability for wellness
- Infrastructure and resources to support wellness
- Regular measurement of well-being and professional fulfillment
- Recognition and appreciation
- Fairness and inclusiveness
- Transparency and values alignment

Efficiency of Practice

This dimension depends on workplace systems, processes, and practices that promote safety, quality, effectiveness, positive patient and colleague interactions, and work-life balance.

Key success factors include:

- Identification and redesign of inefficient work
- Involvement of physicians in redesign of clinical processes and flows
- Teamwork models of practice
- Design of workspace for interpersonal proximity for improved communication
- Use of efficient communication methods to minimize e-mail time burden
- Designing roles to practice at top of licensure
- Streamlining EHR and other IT interfaces
- Realistic staffing and scheduling that recognizes predictable absences

Personal Resilience

While the organization is responsible for the majority of factors related to well-being, the individual still plays a critical role. Personal Resilience refers to the individual skills, behaviors, and attitudes that contribute to physical, emotional, and professional well-being.

Key success factors include:

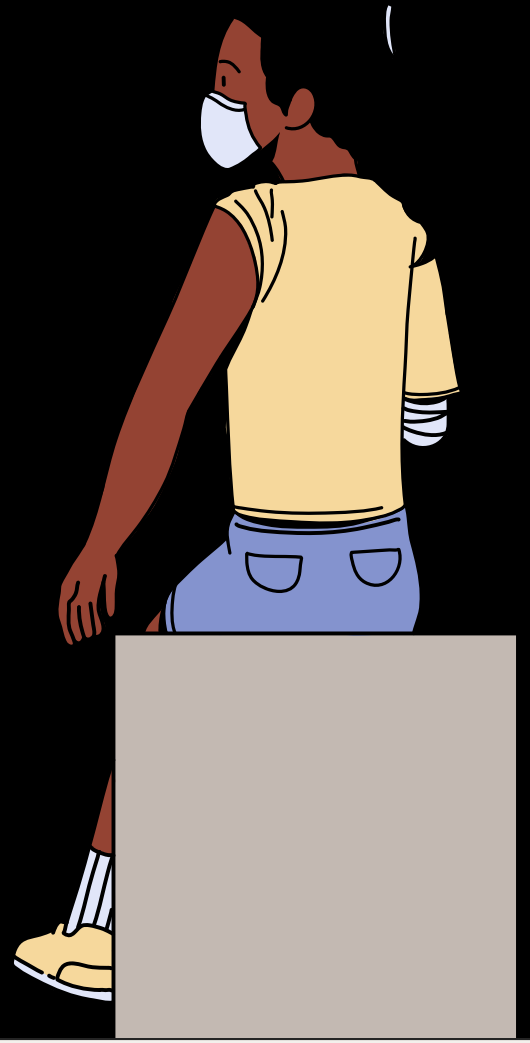
- Self-care assessment and support systems
- Safety net systems for crisis interventions
- Worksite evidence-based health promotion
- Encouragement of peer support
- Financial management counseling
- Life-needs support mechanisms (e.g. child and elder care, after-hours meals, and more)

Describe the physician burnout and moral injury

Stress

"Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being"

Richard Lazarus

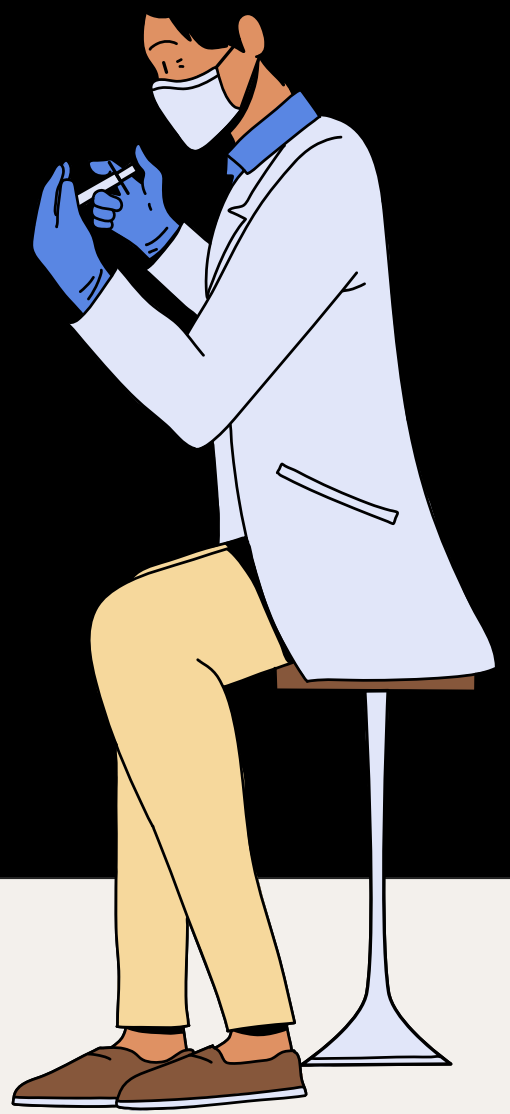



STRESS CURVE
PERFORMANCE
Fatigue
Exhaustion
Laid Back
Anxiety/Panic/Anger
Inactive
Breakdown
STRESS LEVEL
Too Little Stress (Underload)
Optimum Stress
Too Much Stress (Overload)
Burnout

Burnout

Syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed

- Feelings of energy depletion or exhaustion
- Increased mental distance from one's job or feelings negative towards one's career
- Reduced professional productivity



World Health Organization

STAT

Physicians aren’t ‘burning out.’ They’re suffering from moral injury

By Simon G. Talbot *and* Wendy Dean

July 26, 2018

Supporting troops of the 1st Australian Division form a silhouette as they pass towards the front line in Belgium during the first World War.*Frank Hurley/Hulton Archive/Getty Images*

Physicians on the front lines of health care today are sometimes described as going to battle. It’s an apt metaphor. Physicians, like combat soldiers, often face a profound and unrecognized threat to their well-being: moral injury.

Moral injury (MI)

MI was initially **identified and studied in veterans** and recently has been expanded to be applied to physicians.

MI is a helpful lens to understand the psychological impact of working in a difficult system for physicians/ other health care workers

We choose **medicine as a calling** rather than a career path . We experience many **pressures** from the health care system.

Moral injury (MI)

- MI has been described as “a deep sense of transgression including feelings of shame, grief, meaninglessness, and remorse from having violated core moral beliefs” (Brock and Lettini2012).
- Additionally, MI can also be conceived as “a betrayal of what’s right, by someone who holds legitimate authority, in a ‘high-stakes situation’” (Shay1994,2014).

Consequences of Moral Injury

- Medical Errors
- Burnout
- Depression/ Suicidal thoughts
- Alienation from colleagues
- Guilt/Shame
- Inability to forgive
- demoralization

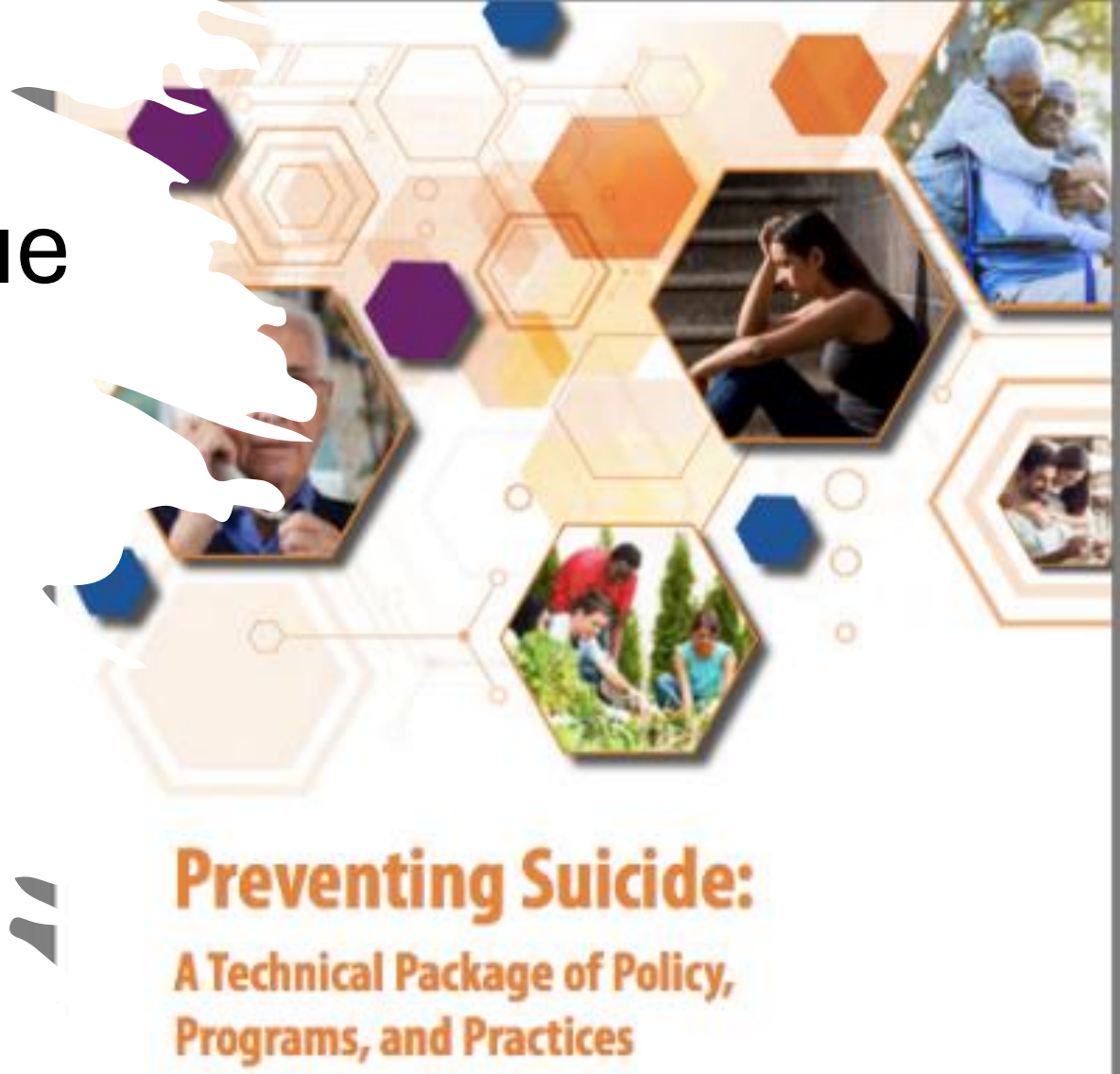
Science shoes that suicide, while complex, is still a health outcome.

Suicide Related Statistics

Major public health issue

- **48%** of the population knew at least one person who died by suicide in their lifetime.
- People with **lived experience** may suffer long-term health and mental health consequences.

(Stone, CDC 2017)



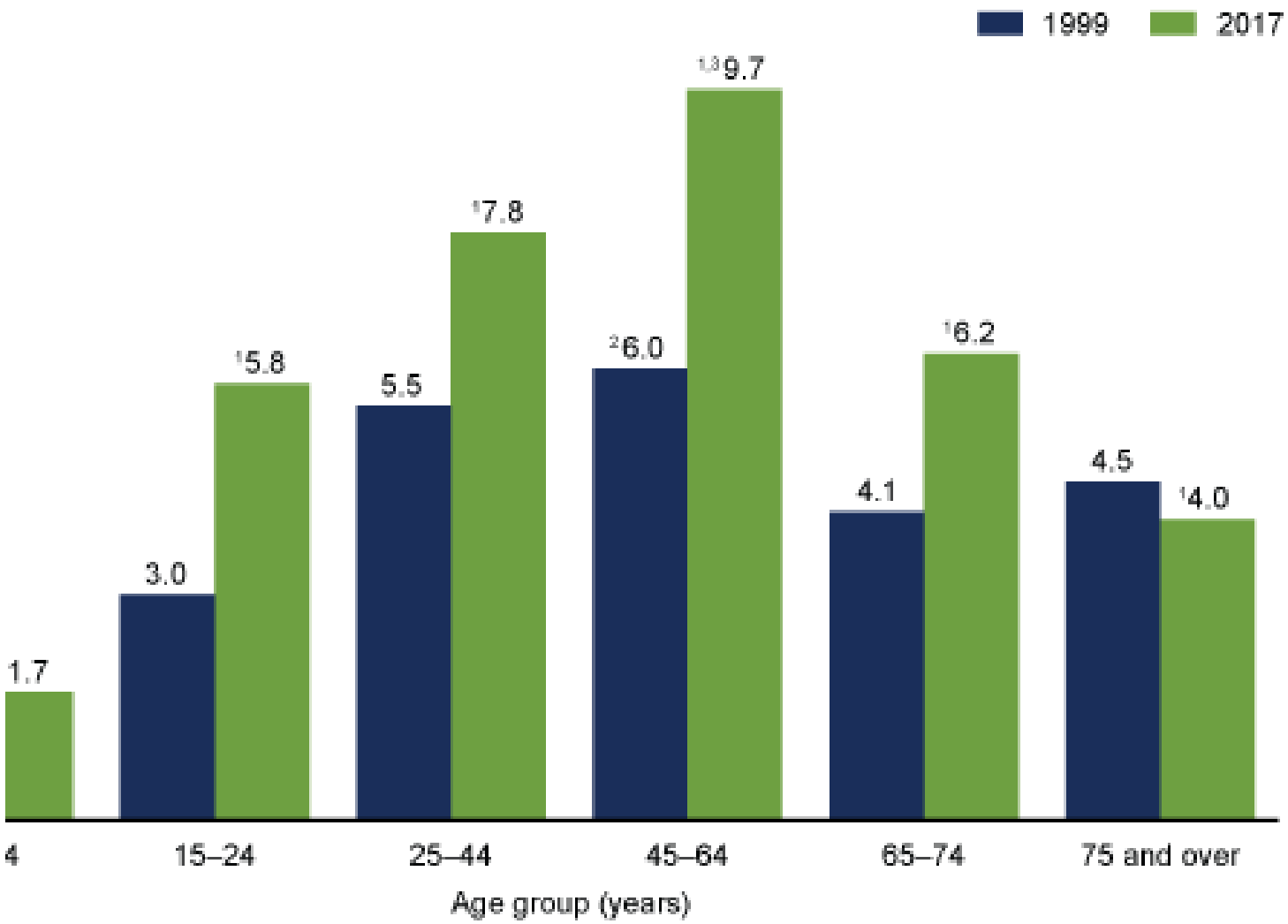
Suicide : 10th leading cause

In 2015, suicide ranked as the **10th leading cause** of death and has been among the top 12 leading causes of death since 1975 in the U.S.

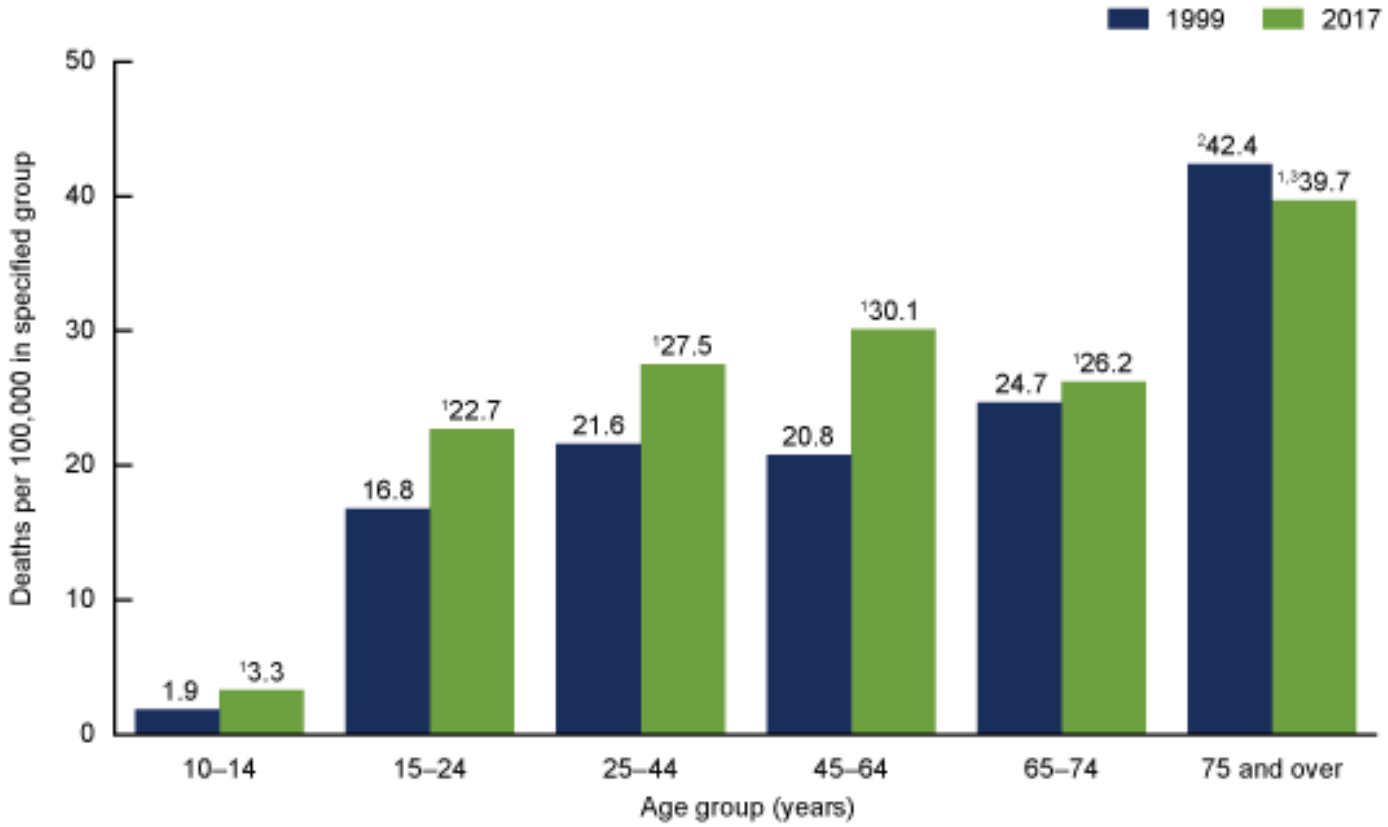
Overall suicide rates increased 35% from 2000 to 2018.

(Stone, CDC 2017)

Female Suicides : 1999 vs. 2017 (CDC



Male Suicides : 1999 vs. 2017



10 FACTS ABOUT PHYSICIAN SUICIDE AND MENTAL HEALTH

1. Suicide generally is caused by the convergence of multiple risk factors — the most common being untreated or inadequately managed mental health conditions.
2. An estimated 300 physicians die by suicide in the U.S. per year.[1]
3. Physicians who took their lives were less likely to be receiving mental health treatment compared with nonphysicians who took their lives even though depression was found to be a significant risk factor at approximately the same rate in both groups.[2]
4. The suicide rate among male physicians is 1.41 times higher than the general male population. And among female physicians, the relative risk is even more pronounced — 2.27 times greater than the general female population.[3]
5. Suicide is the second-leading cause of death in the 24–34 age range (Accidents are the first).[4]
6. Twenty-eight percent of residents experience a major depressive episode during training versus 7–8 percent of similarly aged individuals in the U.S. general population.[5]
7. Among physicians, risk for suicide increases when mental health conditions go unaddressed, and self-medication occurs as a way to address anxiety, insomnia or other distressing symptoms. Although self-medicating, mainly with prescription medications, may reduce some symptoms, the underlying health problem is not effectively treated. This can lead to a tragic outcome.
8. In one study, 23 percent of interns had suicidal thoughts. However, among those interns who completed four sessions of web-based cognitive behavior therapy, suicidal ideation decreased by nearly 50 percent.[6]
9. Drivers of burnout include workload, work inefficiency, lack of autonomy and meaning in work, and work-home conflict.
10. Unaddressed mental health conditions, in the long run, are more likely to have a negative impact on a physician's professional reputation and practice than reaching out for help early.

Research

JAMA Psychiatry | Original Investigation

Male and Female Physician Suicidality
A Systematic Review and Meta-analysis

Dante Duarte, MD, PhD; Mirret M. El-Hagrassy, MD; Tiago Castro e Couto, MD, PhD; Wagner Gurgel, MD; Felipe Fregni, MD, PhD, MPH; Humberto Correa, MD, PhD

IMPORTANCE Population-based findings on physician suicide are of great relevance because this is an important and understudied topic.

OBJECTIVE To evaluate male and female physician suicide risks compared with the general population from 1980 to date and test whether there is a reduction of SMR in cohorts after 1980 compared with before 1980 via a meta-analysis, modeling studies, and a systematic review emphasizing physician suicide risk factors.

DATA SOURCES This study uses studies retrieved from PubMed, Scielo, PsycINFO, and Lilacs for human studies published by October 3, 2019, using the search term "(((suicide) OR

Male and Female Physician Suicidality A Systematic Review and Meta-analysis

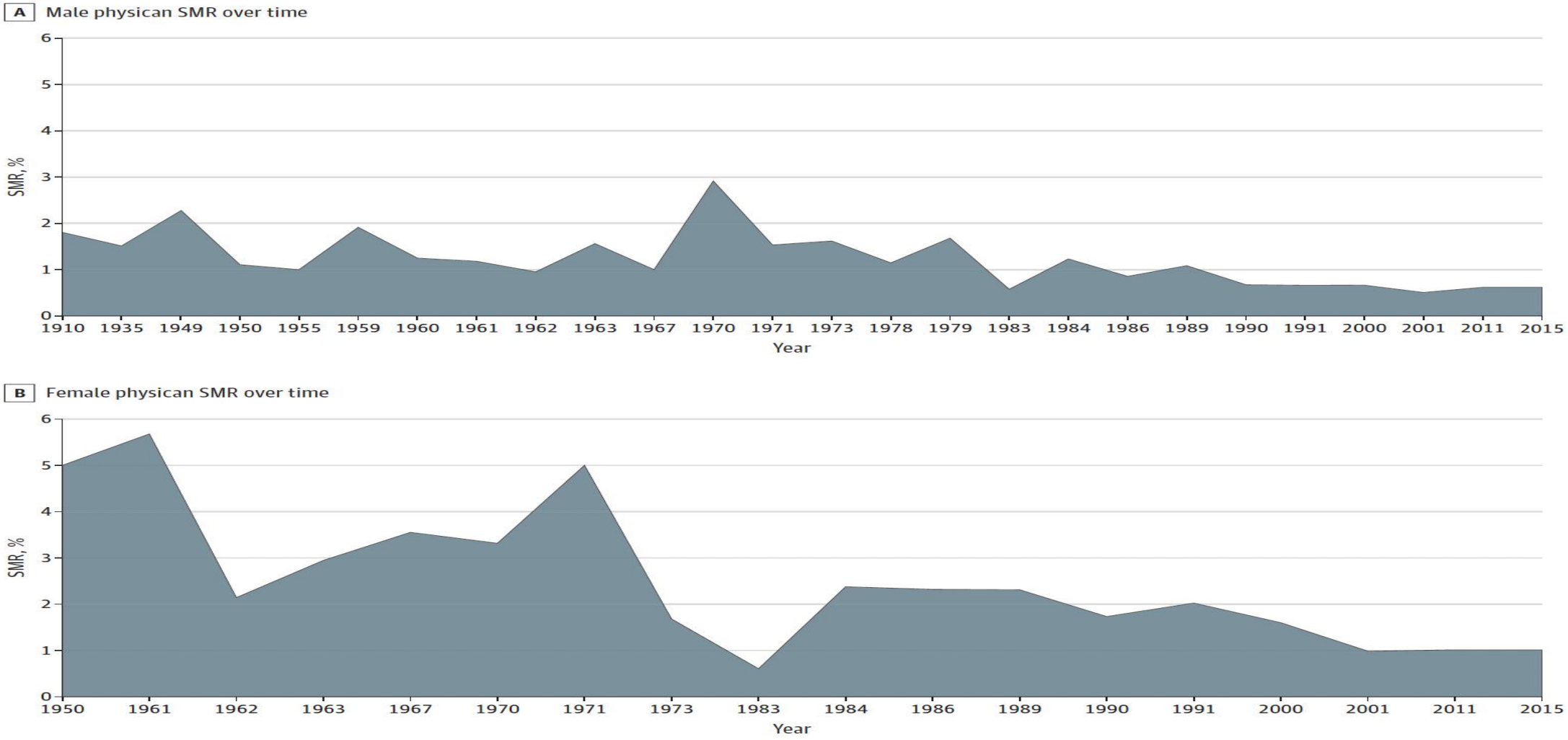
Male and female physician suicide risks compared with the general population from 1980 to 2020

Meta-analysis showed a significantly higher suicides in female physicians compared with women in general

Significantly lower suicides in male physicians compared with men in general

Male and female physician Suicides significantly decreased after 1980 vs before 1980

Figure 3. Age-Standardized Mortality Ratio (SMR) for Suicide Trends Over Time



A, Male physicians. B, Female physicians. Cohort years reflect the first year of each cohort, except for 2015, which reflects the last year of the last cohort. Pre-1980 cohort data were taken from a meta-analysis by Schernhammer and Colditz[11]; all post-1980 data were taken from the meta-analysis data sets, except for 3 studies in Schernhammer and Colditz.[11]

Physician specific factors

1. Fear of punitive consequences

2. Loss of colleague's esteem as a result of acknowleging mental health struggles

3. Physicians commonly cloak expereinces of anxiety, worry, shame

4. Physicians loathe to draw attention to self-perceived weakness

5. Worry about being an imposter

Physicians who died by suicide…

- Fewer physicians who died by suicide were in treatment for their mental health problems.
- Physicians who died by suicide were less likely to have had a recent death of a friend or family member
- Physicians who died by suicide were more likely to have experienced a job-related problem (three times greater likelihood) than the suicide decedents from the general population group.

Physicians who died by suicide…

- Had presence of measurable levels of antipsychotics, benzodiazepines and barbiturates occurred at rather shocking rates of 20 to 40 times that of non-physicians.
- Raised the possibility of concerning practices of self-medicating during times of risk.
- Had a stoic culture of self-sufficiency alongside real and/or perceived barriers to help-seeking allow deterioration in well-being to go unaddressed and to potentially spiral into more severe, entrenched mental health problems.
- One major addressable factor stems from widespread perceptions concerning discriminatory practices related to mental health by state medical boards and hospital privileging procedures, which has driven mental health problems underground within the medical community.

UCSD story

- A program at the University of California, San Diego (UCSD) School of Medicine, which was developed after the loss of more than 10 physicians and trainees to suicide over a period of 15 years,

- Aimed to reduce suicide risk and enhance wellness via education and an online Interactive Screening Program (ISP)

https://afsp.org/interactive-screening-program/

Systemic Programs

Educational/curricular programs. Example: Stress Management and Resiliency Training for Residents (SMART) program, Massachusetts General Hospital.

Facilitated groups. Examples: Resident process groups, Schwartz Rounds, Balint groups. ECHO

Interventions. Examples: online cognitive behavioral therapy (CBT), Interactive Screening Program (ISP) ECHO

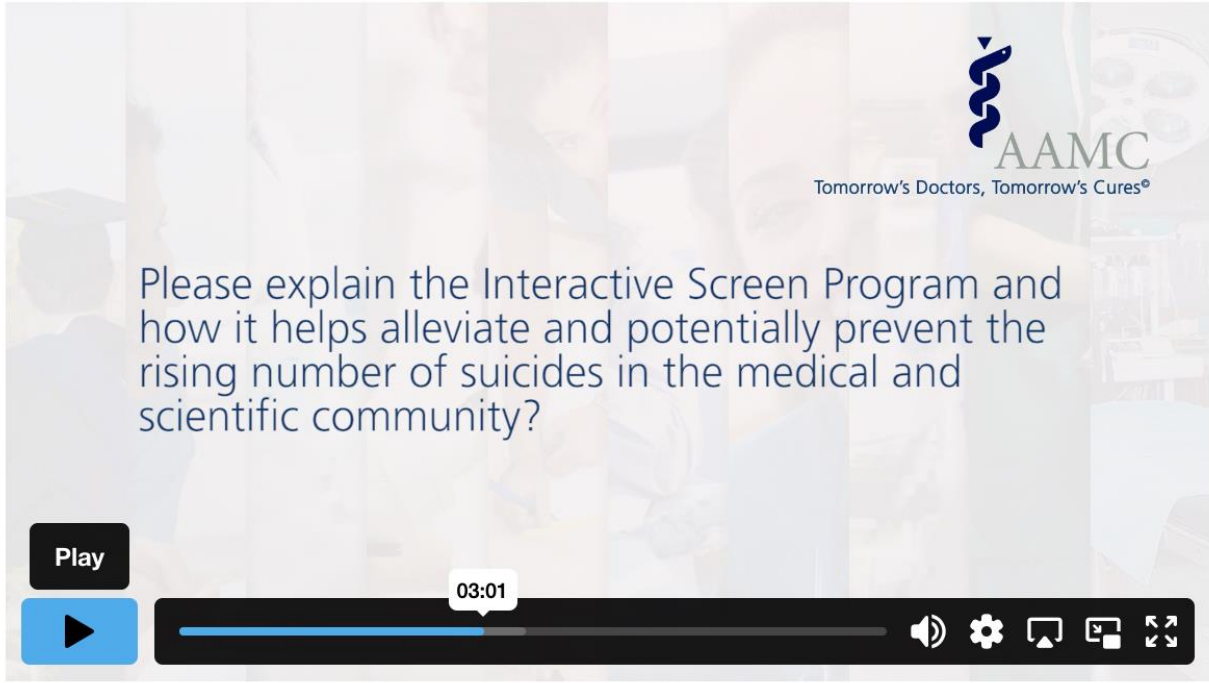
Policy change. Examples: privacy/confidentiality in help seeking, health care for trainees and staff accessible within or outside home institution.

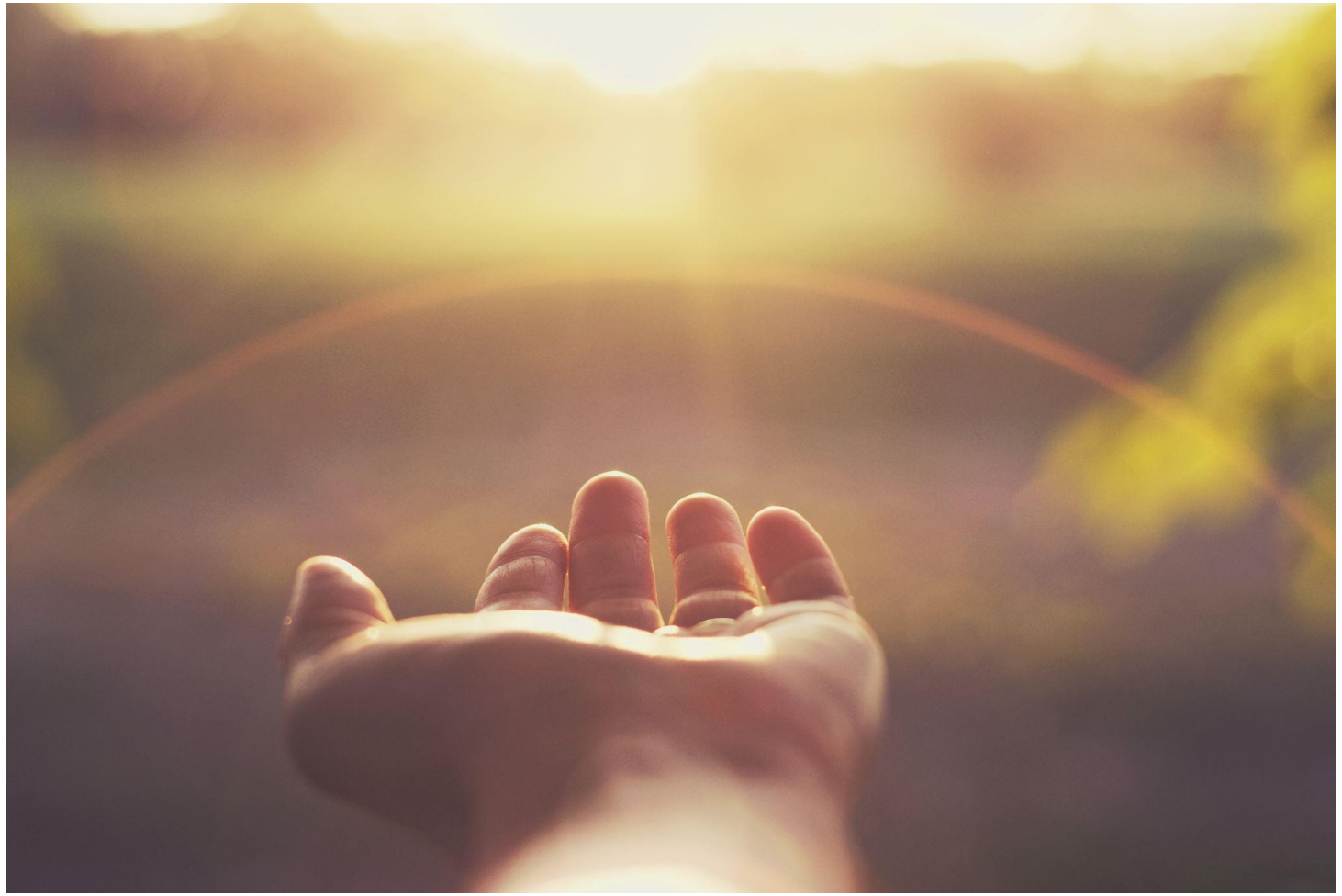
Targeted programs. Examples: coaching, wellness programs, peer mentoring.

Integrated multi-pronged institutional programs. Examples: Oregon Health Sciences University (OHSU),23 UCSD Healer Assessment Education and Referral (HEAR) Program.

Video

- https://www.aamc.org/news/creating-safety-net-preventing-physician-suicide





Describe Self-Compassion

What is Self-Compassion?

Informal definition:

TREATING YOURSELF LIKE YOU WOULD TREAT A CLOSE FRIEND.

Dr. Kristin Neff's model Self - Compassion three components

Mindfulness

Kindness

Common humanity

Mindfulness

Mindfulness vs. Over-identification

Allows us to “be” with painful feelings as they are

Avoids extremes of suppressing or running away with painful feeling

Kindness
Self-Kindness vs. Self-Judgment

Treating self with care and understanding rather than harsh judgment

Desire to alleviate suffering

Common humanity vs. Isolation

Seeing own experience as part of larger human experience not isolating or abnormal

Recognizing that life is imperfect (us too!)

It is not pity for others or self

FIERCE SELF-COMPASSION

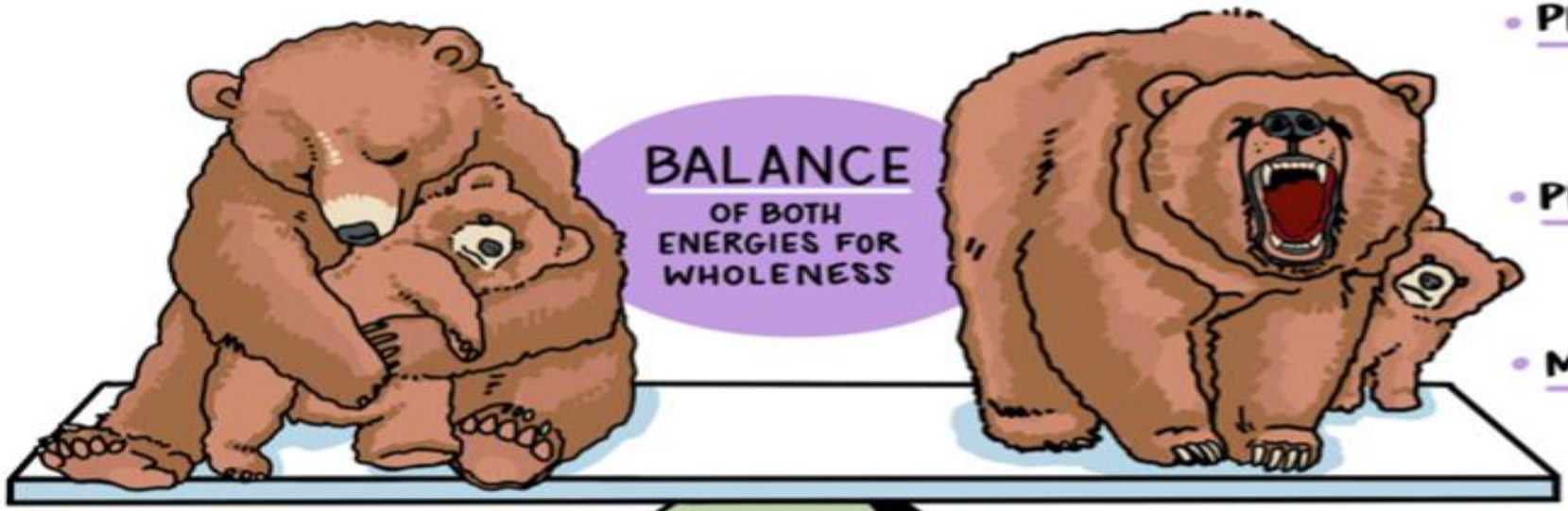
DR. KRISTIN NEFF
self-compassion.org

TENDER SELF-COMPASSION

ACCEPTING OURSELVES
TO ALLEVIATE SUFFERING

FIERCE SELF-COMPASSION

TAKING ACTION
TO ALLEVIATE SUFFERING



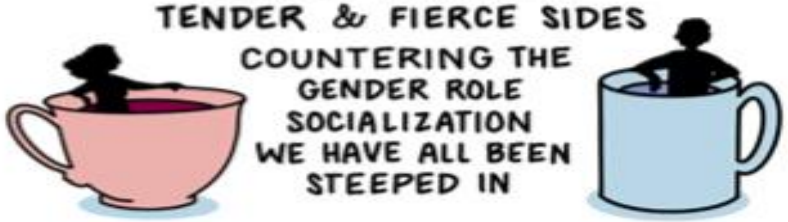
BALANCE
OF BOTH ENERGIES FOR WHOLENESS

- **PROTECTING** DRAWING BOUNDARIES AND SAYING **NO**
- **PROVIDING** AND SAYING **YES** TO OUR NEEDS
- **MOTIVATING** TO LEARN, GROW AND CHANGE THE WORLD

INNER HEALING
TENDER

OUTER CHANGE
FIERCE

OUR
AUTHENTIC SELF
CLAIMS BOTH OUR TENDER & FIERCE SIDES
COUNTERING THE GENDER ROLE SOCIALIZATION WE HAVE ALL BEEN STEEPED IN



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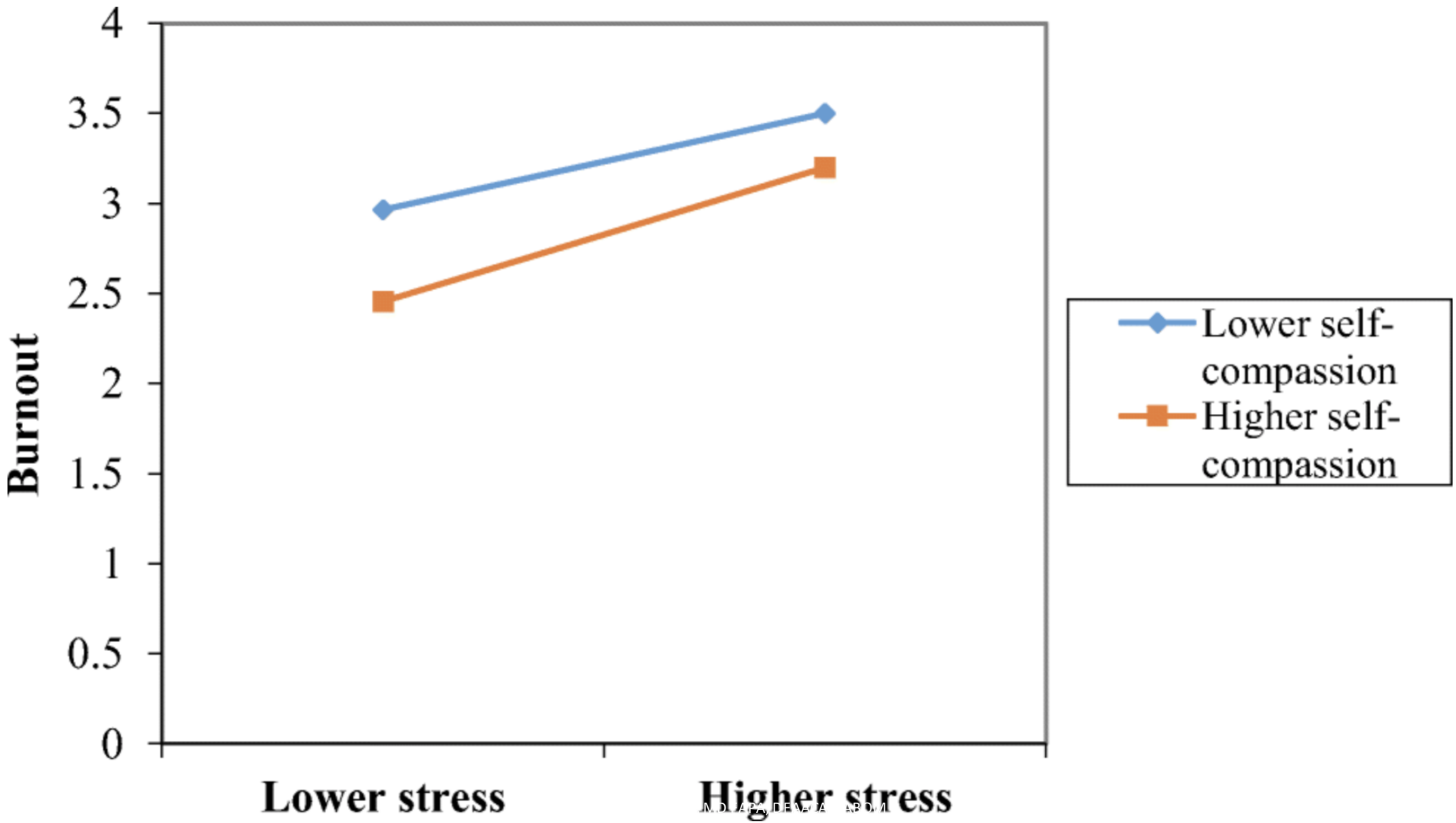
Self-compassion as a Stress Moderator

Objective : Could self compassion be a buffer to work stress

Methods: Cross sectional study of 1700 doctors, nurses, medical students completed Burnout inventory, Satisfaction with Life Scale and Self Compassion Scale

From: Self-compassion as a Stress Moderator: A Cross-sectional Study of 1700 Doctors, Nurses, and Medical Students



Resources

Components of Lifestyle Medicine-

Intentional Self care

Food

Blue/Purple	Green	White	Orange/Yellow	Red
Blackberries	Avocado	Bananas	Bananas	Apples
Blueberries	Apples	Pears	Apples	Cherries
Cabbage	Grapes	Nectarines	Apricots	Cranberries
Currants	Honeydew Melon	White Peaches	Cantaloupe	Raspberries
Eggplant	Kiwi	Cauliflower	Grapefruit	Watermelon
Grapes	Limes	Garlic	Oranges	Strawberries
Plums	Pears	Ginger	Mangoes	Pomegranate
Raisins	Artichoke	Artichoke	Nectarines	Peppers
Purple Potatoes	Arugula	Jicama	Peaches	Tomatoes
Figs	Asparagus	Mushrooms	Pineapple	Radishes
Beets	Broccoli	Onions	Tangerine	Rhubarb
Purple asparagus	Brussels Sprouts	Parsnips	Melon	Red Onion
	Cabbage	Coconut	Beets	Red Potatoes
	Celery	Shallots	Squash	Red Pears
	Cucumber	Turnips	Corn	
	Lettuce	Corn	Peppers	
	Peas		Carrots	
	Peppers		Pumpkin	
	Spinach		Sweet Potato	
	Zucchini		Pears	

Pick at least 1-2 of each color of fruit and vegetables a day to make total 5- 8 servings.

Exercise or Movement

1. Recommendation is to have 150 minutes of moderate intensity physical activity per week with 2 days of strength training
2. Exercise snacking habit

Sleep It's a habit

Consistent wake up time

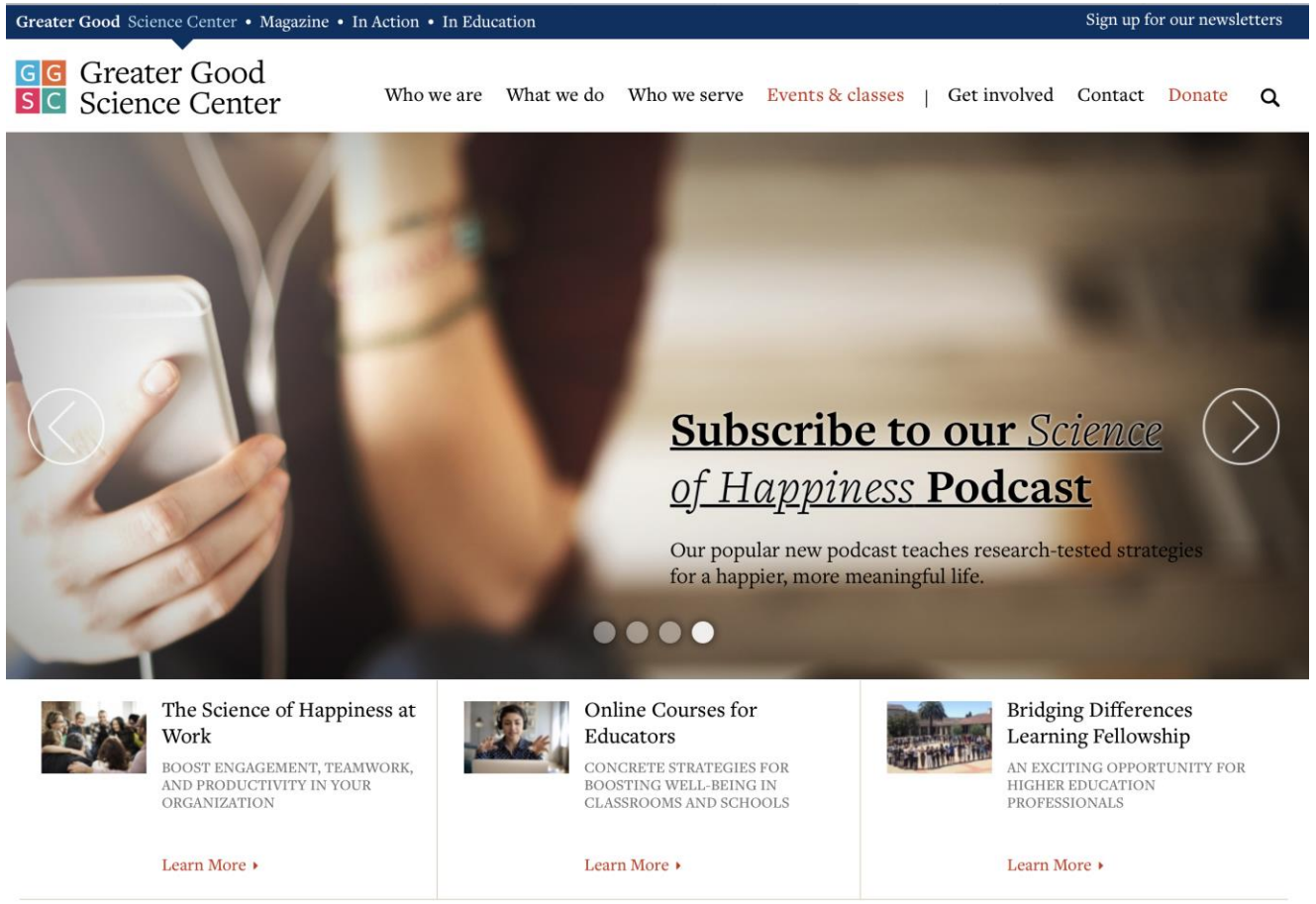
Create darkness

Early morning sunshine

Bedtime routine and possibly meditation

Avoid late Caffeine & alcohol

Melatonin short term only or with breaks



Who We Serve

Greater Good Science Center

Gratitude and Wellbeing

Positive Relationships

Higher life satisfaction

More optimism and joy

Correlations between gratitude and 30 aspects of Big Five

(Wood et.al)

Gratitude practice

Three good things

Journalling

The What-Went Well method

Writing Thank you letter

Gratitude affirmations

Workplace Gratitude

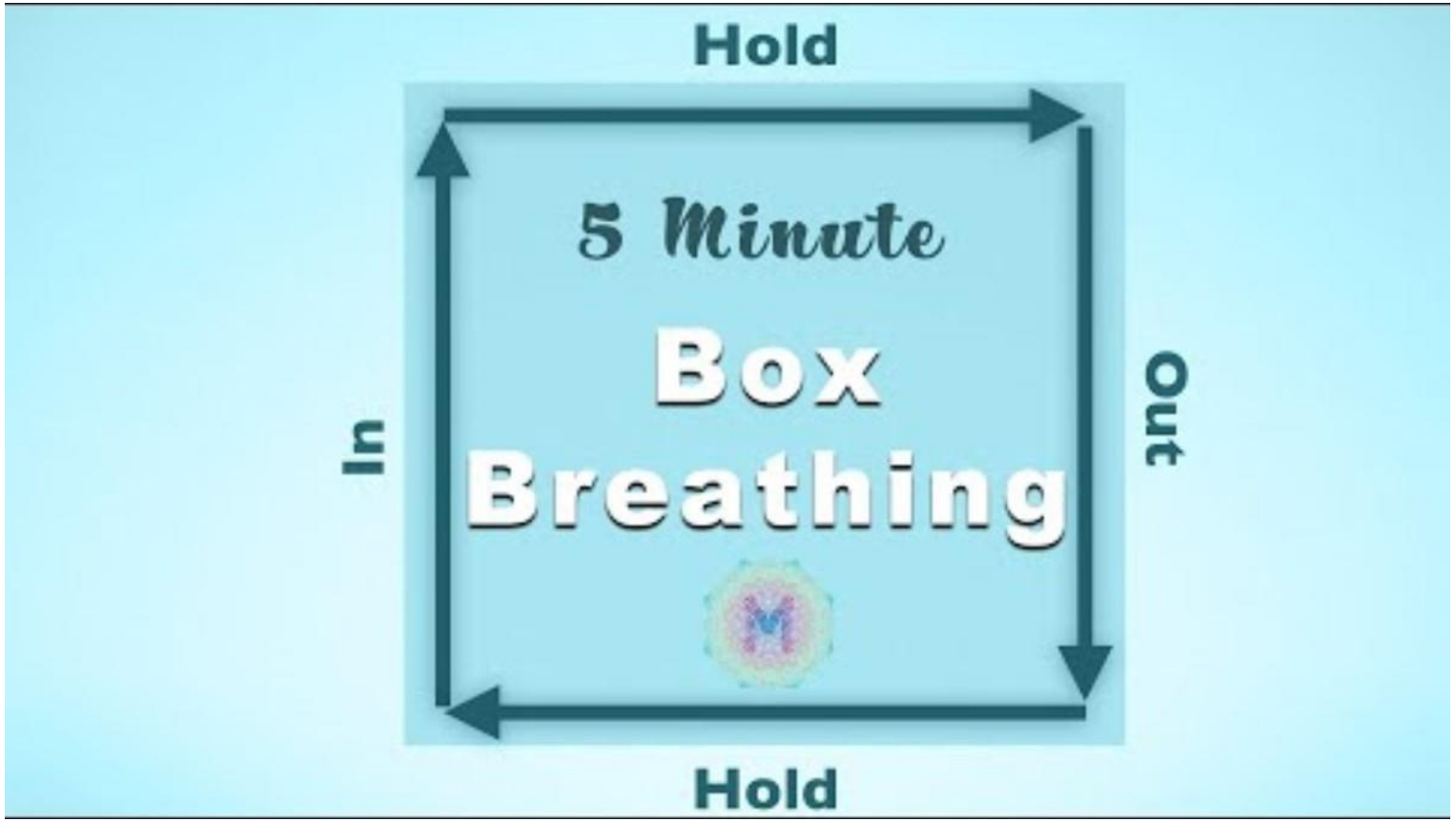
1. Gratitude is about the whole person

2. Gratitude isn't one-size-fits-all

3. Gratitude must be embraced by leaders

4. Gratitude has to be part of the culture

Box breathing



ProjectECHO™

Help for the Healer ECHO

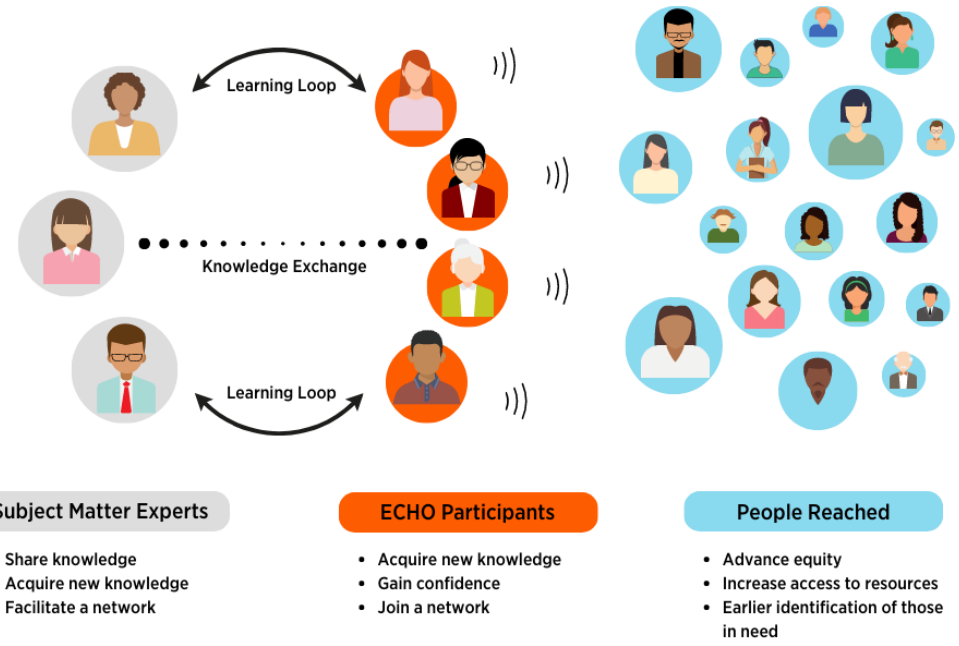
Fridays from 12:30 – 1:30 PM/CST via Zoom

What does ECHO offer?

- Free CME for healthcare professionals
- Get expert knowledge in a virtual learning network with mental health and wellness experts.
- Support for resilience, self-care, and organizational aspects of wellness for workers and administrators.
- Uses the socio-ecological framework to provide solutions from an individual, interpersonal, institutional, community, and policy framework to help participants become aware of the opportunities for proactive solutions to burnout.

Topics Include:

- Stress and the Body: Fundamentals of the Mind/Body Connection
- Supporting Health Relationships
- Gratitude
- Parenting in the Time of Uncertainty
- Grief and Moral Injury
- Life after COVID
- How Do You Heal? The 8 Dimensions of Wellness



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Thank you for your time !

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Accredited CME Activity

Physician Mental Health:
An Evidence-Based Approach to Change

Christine Moutier, MD

Dr. Moutier is Chief Medical Officer at the American Foundation for Suicide Prevention

Continuing Medical Education Information

Release Date: July 20, 2018

Expiration Date: June 30, 2021

This activity is provided by the Federation of State Medical Boards.

Learning Objectives

Upon completion of this activity, participants should:

- *Describe the prevalence, risk and protective factors of suicide in physicians*
- *Identify the barriers to help seeking and positive culture change, including stigma*
- *Convey individual as well as organizational strategies to prevent suicide and burnout*

Method of Participation

This article is one of four in this CME section that must be read in order to receive CME credit. The others are "FSMB Efforts on Physician Wellness and Burnout," "Update on the UC San Diego Healer Education Assessment and Referral (HEAR) Program," and "Facilitating Help-Seeking Behavior Among Medical Trainees and Physicians Using the Interactive Screening Program."

After reading all four of the articles, CME participants should log-in and register for the CME activity at the web address provided in the "How to Participate in the CME Activity" document, and complete and submit the online post-test and evaluation. The post-test includes questions about each article. The FSMB policy on wellness and burnout is not required for CME credit. It is provided as a supplemental resource.

ABSTRACT: Awareness of high rates of physician burnout, depression and suicide is leading to changes within the medical profession at all levels. Most mental health problems can be effectively managed, but real and perceived barriers — such as confidentiality concerns and fear of negative ramifications on one's reputation, licensure, or hospital privileging — keep many physicians from addressing their mental health needs. Unattended distress has ramifications for physicians as well as the health care industry and patient safety. A number of factors contribute: in addition to individual risk factors and stress load, institutional culture plays a critical role in leading physicians to rationalize and internalize distress as part of their professional identity. There are several initiatives with demonstrated effectiveness in medical settings that can be scaled up for greatest impact: education and stigma reduction efforts, policies and procedures that treat mental health on par with physical health, and efforts that promote an overarching culture of respect. Further strides can be made by addressing hospital and state licensing forms' questions related to mental health — ensuring that questions pertain to competence rather than illness — or replacing questions altogether with a statement encouraging proactive actions to protect physician mental health and safe practice.

Introduction

Physicians who are proactive about their own health — both physical and mental — protect their ability to maintain optimal, safe patient care. Real and perceived barriers lead physicians to avoid addressing their own mental health needs all too often.[1] An unprecedented number of physicians experience burnout, depression and other forms of distress. According to estimates, 300 to 400 American physicians take their lives each year.[1] Stigma within broader societal views and within the culture of medicine play a major role, like blinders, making us

oblivious to times when our own mental health deteriorates, and keeping myths about mental health abounding. Physician distress has reached crisis proportions, having ramifications for physicians, healthcare systems, and, importantly patient safety, particularly when left to spiral out its natural course without intervention. The fact is that most mental health conditions can be managed effectively, and the vast majority of physicians with mental health conditions keep functioning well especially when care is taken, just as most physicians with physical illnesses keep practicing well; in other words, illness does not necessarily equate to impairment.[2]

It can be helpful to view mental health along its full continuum. Like physical health, mental health is the result of dynamic interactions between genes and environment, and encompasses a full spectrum from wellbeing, to burnout, to clinical conditions and suicide risk. The human condition is both enormously resilient with against-all-odds stories abounding, but at the same time, with known impediments that can temporarily dismantle resilience. We must shed our blinders regarding these impediments and have our eyes wide open in order to take action to preserve resilience and protect mental health.

One key factor shaping physicians' behavior surrounding these issues is fear — the fear of punitive consequences or loss of colleagues' esteem as a result of acknowledging mental health struggles. These conditions are actually very common to the human condition, and mostly readily manageable. Common drivers of fear are the perceived or real consequences physicians could face by engaging in mental health treatment. Patient safety can potentially be jeopardized when physicians aren't afforded the same opportunity for prevention and intervention for their mental health on par with physical health. Therefore, it is time to take inventory of our culture and current practices surrounding physician mental health. Clearly, this is an issue that must be addressed for the sake of all — for physicians and the medical profession, and for patient safety. Fortunately, there is a breadth of experience and data that provide evidence-based approaches to ensure physicians find the help and encouragement they need to responsibly manage their mental health while continuing to practice well.

ONE KEY FACTOR SHAPING PHYSICIANS' BEHAVIOR SURROUNDING THESE ISSUES IS FEAR — THE FEAR OF PUNITIVE CONSEQUENCES OR LOSS OF COLLEAGUES' ESTEEM AS A RESULT OF ACKNOWLEDGING MENTAL HEALTH STRUGGLES.

Physician Suicide Rates: Higher than the General Population

The seeds of suicide risk may be sown during medical training, when behaviors and attitudes are modeled and habits related to practice and personal life are formed. During internship, 25% suffer from depression or significant depressive symptoms,[3] and a large meta-analysis finds 28% of residents (50,000 residents, spanning 50 years) experience significant depressive symptoms that may have met criteria for major depression during training.[4] In addition to obvious contributors like stress and sleep-deprivation on top of pre-existing risk factors, such as genetic loading and early adversity, trainees and physicians also face institutional and self-stigma regarding their own mental health needs. High rates of depression, burnout, addiction, anxiety and working in settings that tolerate toxic behaviors and discourage help-seeking, combined with access to lethal means and a greater knowledge of lethality of drugs than the general population, likely contribute to the high rate of suicide among physicians.

A number of studies have demonstrated higher physician suicide mortality rates compared to that of the general population. While male U.S. physicians have a longer life span and lower rates of death due to many medical causes (such as COPD, liver disease, pneumonia) as compared to other male professionals, suicide as a cause of death is over-represented.[5] A meta-analysis by Eva Schernhammer that included U.S. and international studies, which supported the finding of elevated rate of suicide risk for male physicians versus the general male population (OR 1.41), additionally showed that the risk of suicide for female physicians is even higher: two to four times higher than non-physician females (overall OR 2.27).[6]

Another study on physician suicide by Gold et al. affords a more nuanced understanding of the drivers of physician suicide risk compared with what is known about suicide risk in general. The study utilized information from the National Violent Death Reporting System, which in drawing from multiple data sources allows for a richer analysis of risk factors contributing to the suicide: death certificates, coroner data, medical examiner information,

toxicology information, family interviews, and law enforcement reports.[7] Using psychological autopsy method, Gold's study found that the risk factors for physicians who died by suicide differ in certain ways from those of the general population who take their lives. While the prevalence of mental health problems was on par with that of the general population, fewer physicians who died by suicide were in treatment for their mental health problems. Physicians who died by suicide were less likely to have had a recent death of a friend or family member and were more likely to have experienced a job-related problem (three times greater likelihood) than the suicide decedents from the general population group. Among the physicians who died by suicide, the presence of measurable levels of antipsychotics, benzodiazepines and barbiturates occurred at rather shocking rates of 20 to 40 times that of non-physicians. The study concluded that major barriers to help-seeking exist in the medical community, and that these barriers result in less frequent diagnosis and treatment of physicians with mental health conditions and raised the possibility of concerning practices of self-medicating during times of risk.

PHYSICIANS COMMONLY CLOAK EXPERIENCES OF ANXIETY, WORRY AND SHAME, RATIONALIZING SIGNIFICANT FEELINGS OF DISTRESS AS PART OF THEIR IDENTITY AS PHYSICIANS, LOATHE TO DRAW ATTENTION TO SELF-PERCEIVED WEAKNESS.

Reasons for Physician Distress and Suicide Risk

A number of factors contribute to the problem of unattended physician and resident distress and suicide risk. While long hours, heavy work load and onerous health care system changes are obvious set-ups for burnout and cynicism, a stoic culture of self-sufficiency alongside real and/or perceived barriers to help-seeking allow deterioration in well-being to go unaddressed and to potentially spiral into more severe, entrenched mental health problems. One major addressable factor stems from widespread perceptions concerning discriminatory practices related to mental health by state medical boards and hospital privileging procedures, which has driven mental health problems underground within the medical community. Physicians commonly cloak experiences of anxiety, worry and shame, rationalizing significant feelings of distress as part of their identity as physicians, loathe to draw attention to self-perceived weakness. Concerns about the potential for negative ramifications on their reputation, licensure, or hospital privileging, in addition to numerous other barriers — such as time constraints, uncertainty about whether treatment would help, and worries about confidentiality — keep those in need of help from reaching out.[8,9]

Consequently, life stressors converging with deteriorating mental health creates a serious risk for the physician — a risk that often goes unrecognized and unaddressed, leading to the high rates of depression and other mental health problems, and suicide within the profession. Moreover, left to informal ways of alleviating symptoms such as anxiety, agitation or insomnia, self-prescribing may be a common but dangerous practice, given the short-sighted albeit understandable desire for symptom relief, but without an assessment of the overarching changes in mental health, potential causes/contributors, comorbid conditions and a comprehensive treatment plan with ongoing follow-up. Self-prescribing or informal curbside colleague-to-colleague prescribing may contribute to suicide risk and may at least partially account for the surprisingly elevated rate of benzodiazepines and antipsychotic medications (20 to 40 times higher) in the toxicology analysis of physicians who took their lives.[7]

Cultivating a Healthy Professional Culture

Fortunately, several national initiatives have recently begun to address the issues of physician wellbeing, burnout, and suicide prevention. In 2003, the American Medical Association released a consensus statement recognizing the lack of priority given to physician mental health within the culture of medicine and identified barriers to treatment, including discrimination and licensing.[10] However, in the decade that followed not much change occurred. Significantly, in 2016 the National Academy of Medicine convened a collaborative initiative with the goal of making clinician wellbeing a national priority. The AAMC and the Accreditation Council for Graduate Medical Education (ACGME) have launched ongoing initiatives dedicated to physician/trainee wellbeing. In late 2016, the American Foundation for Suicide Prevention (AFSP) collaborated with the Mayo Clinic to produce a four-minute educational video on physician suicide prevention as well as an online handbook, *After a Suicide: A Toolkit for Physician Residency/Fellowship Programs*, which contains

best practices for preventing suicide and for supporting the aftermath of a suicide within a physician residency or fellowship program.[11] Both resources can be found on the ACGME and AFSP websites.[12]

Self-Stigma Requires Community Response

Given the high stakes for physicians and their mental health, along with recent advances in many relevant aspects of science — from neuroscience to clinical psychiatry — the promotion of knowledge and positive attitudes about mental health has a critical role to play in addressing the problem of physician distress and suicide risk. Stigma operates on the population and individual levels, particularly when an individual becomes distressed. Studies have shown that those who are experiencing depression have more highly stigmatized views than non-depressed people. A study by Schwenk et al., examining a medical student population, revealed that medical students viewed mental health problems with much greater stigma when they themselves were currently experiencing distress.[13] In response to the statement, "If I were distressed, I would seek treatment," a majority (87%) responded "yes." However, of those who reported feeling depressed at the time, only 46% said they would seek treatment. Self-stigma seems to deepen when we ourselves are distressed, and an unfortunate instinctual reflex may be to withdraw from relationships and connection. It is therefore important that even for people who recognize the need for mental health help-seeking in general and who know the warning

...THE PROMOTION OF KNOWLEDGE AND POSITIVE ATTITUDES ABOUT MENTAL HEALTH HAS A CRITICAL ROLE TO PLAY IN ADDRESSING THE PROBLEM OF PHYSICIAN DISTRESS AND SUICIDE RISK.

signs, education must target peers and mentors to play an active role in noticing, encouraging and supporting individuals in distress to get help when needed. The signs of deteriorating mental health may be subtle in many cases, but colleagues who work closely together are well poised to notice changes and can make a difference by simply approaching the person with open-ended and caring supportive conversation. Peers and leaders can have a powerful influence by normalizing the seeking of mental health treatment.

Stigma Reduction Initiatives

Stigma reduction is a core component in successful wellness and suicide prevention programs.[14] Education plays a key role, but policies and procedures that make it safe for individuals to seek support, including formal mental healthcare, must be created and enforced to allow physicians to get the help they need when first experiencing distress. This combination of education and policy change is critically important to address fears about mental health and treatment.

THE SIGNS OF DETERIORATING MENTAL HEALTH MAY BE SUBTLE IN MANY CASES, BUT COLLEAGUES WHO WORK CLOSELY TOGETHER ARE WELL POISED TO NOTICE CHANGES...

Numerous studies demonstrate a relationship between population suicide rates and beliefs about mental health and help seeking. In a Dutch study of stigma and help-seeking, various regions of high and low suicide rates in the Netherlands were compared.[15] The study showed that among those regions with low rates of suicide, people had more positive attitudes toward help-seeking and experienced less self-stigma and shame about mental health problems. Conversely, a sense of shame and more negative attitudes toward help seeking correlated with higher suicide rates.

Several successful prevention programs have incorporated stigma reduction as a prominent theme. Among the successful suicide prevention programs in countries such as Japan, Germany and Hungary, stigma reduction and increasing access to mental health care are considered core components.[16] From 1996 through 2002, an impressive 33% reduction in suicide rate was accomplished by the U.S. Air Force's suicide prevention program.[17] Stigma reduction was addressed in the leadership, throughout the ranks and, importantly, was given the backing of policy changes that protected the privacy and professional reputation of those who were referred for help, contributing to the success of the program.

A program at the University of California, San Diego (UCSD) School of Medicine, which was developed after the loss of more than 10 physicians and trainees to suicide over a period of 15 years, aimed to reduce suicide risk and enhance wellness via education and an online Interactive Screening Program (ISP) which together created a successful

safety net to recognize risk and prevent suicides.[18] The UCSD program, which began in 2009, has met with tremendous success and is still in operation nine years later. To date, more than 300 physicians, staff and trainees have accepted referrals for mental health treatment through the program; the majority report that they would not have done so on their own. One key to this program's success lies in the *anonymity* the ISP affords individuals to be screened and to dialogue with a counselor to work through their concerns about next steps, in a way that feels safe and comfortable especially during periods of highest risk.

Scaling Up Solutions

A national response to depression and suicide among physicians and trainees is underway. Several key changes have been recommended as critical to these efforts' success: safe and accessible avenues for physicians to address mental health concerns, confidential and timely follow-up and stigma reduction.[19] Specifically, it is important that programs and hospital leaders provide opportunities for those experiencing distress to follow up with a mental health professional without fear of punitive consequences.

While these important national initiatives forge ahead over the coming months and years, there are many local initiatives that have been developed and show promise for improving culture related to physician mental health and help seeking. These positive strategies can be categorized into:

Educational/curricular programs. Example: Stress Management and Resiliency Training for Residents (SMART) program, Massachusetts General Hospital.[20]

Facilitated groups. Examples: Resident process groups, Schwartz Rounds, Balint groups.

Interventions. Examples: online cognitive behavioral therapy (CBT),[21] Interactive Screening Program (ISP).[18]

Policy change. Examples: privacy/confidentiality in help seeking, health care for trainees and staff accessible within or outside home institution.[22]

Targeted programs. Examples: coaching, wellness programs, peer mentoring.

Integrated multi-pronged institutional programs. Examples: Oregon Health Sciences University (OHSU),[23] UCSD Healer Assessment Education and Referral (HEAR) Program.[18]

These efforts are critically important in order to make changes at local and regional levels. And while implementation science research is needed to determine the most impactful strategies, given the great need, current efforts are important and are appropriately inspiring other medical institutions to follow suit.

Questions for Licensing

Another critical change occurring at the state level is the review of the manner in which physician mental health is queried on medical credentialing and licensing forms. The approach has historically been to include questions about health that may lead to impairment, as a way for potential cases of physician impairment that may warrant further investigation to be identified. However, assumptions that predated the science related to fitness for duty concerning mental health may have led to ineffective, and in some cases, inappropriate questions concerning mental health. Among the U.S. states' medical and osteopathic boards, these questions are asked in highly variable ways. Several studies dating back to 1993 have reviewed the manner and focus of questions related to mental health. For example, from 1993 to 1996 there was a significant increase in states asking about not only the presence of a mental health condition, but the effect on "ability to practice"—from 42% in 1993 to 75% in 1996.[24] In 2009, Schroeder et al. conducted a detailed analysis of the questions related to mental health according to two main standards set by the U.S. Americans with Disabilities Act (ADA) (focus on fitness to perform functions of practice, and a specified and reasonable time period—"current or very recent" per the ADA.)[25] Thirty-four of the 49 states (69%) that included questions on mental health contained likely or impermissible items by ADA standards. In 2017, Gold et al. similarly reviewed medical licensing applications.[9,26] Compared with the findings eight years prior, fewer states' applications currently include questions about mental health—84% (43 of 51 applications) versus 98% (50 of 51).[26] However, unlike questions related to physical health, the ones about mental health tend to include treatment history, and only 53% of the 43 applications focus on functional impairment. Dyrbye et al. found that

ANOTHER CRITICAL CHANGE OCCURRING AT THE STATE LEVEL IS THE REVIEW AND ADDRESSING OF THE MANNER IN WHICH PHYSICIAN MENTAL HEALTH IS QUERIED ON MEDICAL CREDENTIALING AND LICENSING FORMS.

not enough progress has occurred between 2009 and 2017, since in 2017 still only a third of states' licensing and renewal questions were consistent with AMA, APA, and ADA guidelines.[9]

One recommended approach for state medical boards is to develop a process for reviewing licensing forms (initial and renewal forms) with a focus on the questions pertaining to mental health. AMA policy provides some guidance: it calls on state medical boards to "evaluate a physician's mental and physical health similarly, ensuring that a previously diagnosed mental health illness is not automatically considered as a current impairment to practice."[10] Moreover, a 2015 position statement by the American Psychiatric Association (APA) recommends that medical licensing bodies not ask about past diagnosis and treatment of mental disorders.[27]

The first consideration for state medical boards as they review their licensing forms could be:

- ***Are there other mechanisms (besides licensing forms) that allow for identification of physicians practicing unsafely?*** If so, there may be no need to include questions specific to mental health on the licensing form since most instances are not being disclosed anyway (only 6% of physicians who had sought mental health treatment endorsed doing so in one recent study[28]). Additionally, the presence of questions about mental health arguably not only historically but currently leads to a paradoxical effect of driving the mental health needs of physicians underground or unattended, leading to a much greater likelihood of problems with practice and the host of other problems with physician distress discussed earlier.

Next, state medical boards could review the questions they ask pertaining to mental health with the following criteria in mind:

- ***Are the questions focused on competence/impairment rather than illness or treatment?*** This is a key differentiation outlined and enacted by the ADA.[29] Many physicians have physical and/or mental health conditions, which do not jeopardize competent clinical practice, especially when appropriately managed.
- ***Are the questions about mental health asked in the same way as questions about physical health?*** For example: "Do you have a physical/mental health condition that is currently impairing you from safe practice?" Most physicians with mental health conditions have conditions that can be readily managed with appropriate treatment and follow-up.
- ***Is there a time constraint in the questions about mental health that is consistent with ADA guidelines ("current fitness to perform a job"[30]) and pertinent to identifying impairment?*** Asking about *current* physical or mental health conditions is the optimal way to keep the frame on this relevant and appropriate. Asking about lifetime history of depression or even over the past one to two years is not likely to yield relevant or helpful results. One example of a recommended way to ask is: "Do you currently suffer from any health condition (physical or mental health) that has compromised you from practicing safely or competently?"

Changing licensing form questions with these criteria in mind could significantly and positively impact the problem of physician mental health problems going unaddressed. Additionally, a communications campaign to physicians in each state about changes in the questions and how the medical board handles disclosed information could also advance a major step forward. One very solid option is to remove questions about mental health altogether and to consider replacing them with a statement about the critical importance of addressing mental health in order to protect one's health and safe practice. This option may be the most impactful next step, even if only for a period of time, while physicians learn about these changes and learn to trust that it is truly safe to address mental health needs in the same way we do our physical health.

INSTITUTIONS AND INDIVIDUALS HAVE A ROLE IN OPTIMIZING PHYSICIAN MENTAL HEALTH AND PROTECTING SAFE PRACTICE. PHYSICIANS SHOULD CULTIVATE THEIR OWN MENTAL HEALTH AND RESILIENCE AS AN ASPECT OF PROFESSIONAL RESPONSIBILITY.

Conclusion

Institutions and individuals have a role in optimizing physician mental health and protecting safe practice. Physicians should cultivate their own mental health and resilience as an aspect of professional responsibility. Health care institutions on local and national levels must make changes necessary to support these efforts. Key to preserving physicians' mental health is an environment conducive to help seeking in the early stages of distress, well before the individual reaches a state of crisis as well as all

points along the way. By addressing existing cultural barriers to help-seeking within the medical community — including the manner in which mental health is included in credentialing and licensing questions — physician mental health will be preserved, and patient safety will ultimately benefit. ■

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Neurobiology of Suicide

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April 20, 2024

Learning Objectives

At the end of this presentation, participants will be able to:

1. appreciate the clinical relevance of neuroscience to suicidality.
2. integrate neuroscience aspects of suicidality into a comprehensive case formulation.
3. name potential biomarkers for suicide.

Small group discussion

- How does this video add to the way that you might think about this patient?
- What implications might it have for treatment?
- What other questions would you have?
- How might these neuroscience data enrich your original formulation or treatment plan?

Take home point

1. The neurobiology of suicide is not currently well defined.

Epigenetics

- Traumas, especially those occurring early in life, have been established as one of the strongest risk factors of suicidality
- Challenges in distinguishing the epigenetics of suicidality from those of psychiatric illnesses related to suicide
- Lower levels of BDNF in suicidal patients are probably the consequence of epigenetic modifications due to stress
- Epigenetic regulation of BDNF, TrKB, HPA axis components, and GABA-A receptors

References: Boldrini, Cheung, Roy, Wislowska-Stanek

Genetics

- Specific genes that contribute to suicide risk are unknown
- Suicide, nonfatal suicide attempts, and SI have a moderate hereditary component, independent of major psychiatric illnesses (twin studies, adoption studies, etc.)
- GWAS have been unhelpful at finding genome-wide significant SNPs
- 10 genes downregulated and 3 genes upregulated in prefrontal cortex in bipolar disorder patients with suicide
- Higher number of DNA strand breaks in the frontal cortex, pons, medulla, thalamus
- Hypermethylation of 4 genes: NR2E1, GRM7, CHRNB2, DBH. Leads to overall deficit in expression of these genes and related functions in hippocampus correlates with hyper-responsive behavioral phenotypes. Involvement in impulsivity, anxiety, learning, memory-related behavior.
- Many but not all studies report associations b/w suicidal attempt and abnormalities in genes coding for TPH, some 5-HT receptors, and the transporter. Some cases may have interaction b/w childhood stressors and 5-HTT polymorphisms
- FKBP5

References: Boldrini, Schaffer, Roy

Significant associations with history of suicide attempt in BD

- BDNF Met allele and Met/Met genotype
- SNPs on 2p25 fall in a large linkage disequilibrium block containing the ACP1 (acid phosphatase 1) gene
- Haplotypes of the FKBP5 gene
- IMPA2 (rs669838 AA genotype)
- INPPI (rs4853694 GG genotype)
- GSK3β (rs1732170 T allele; rs119221360 A allele)
- Linkage signal at 2p12 at marker D2S1777
- ZNF804A (rs1344706A allele)
- Trend towards association between ANK3 (rs9804190T allele)
- Higher severity of suicidal behaviour (measured as a continuous variable) associated with CRH receptor 2 haplotype 5-2-3

Significant associations with more violent suicide attempts in BD

- 5HTTLPR "S" allele associated with more violent suicide attempts

No significant association with history of suicide attempt in BD

- 5HTTLPR polymorphisms (replicated)
- 5HTT G2651T (rs1042173) allele mRNA expression ratios
- 5-HT1B polymorphism (G861C)
- 5-HT2C receptor variants Cys23Ser
- TPH A218C polymorphism (replicated)
- COMT Val/Met polymorphism (replicated)
- MAOA or MAOA haplotypes
- FOXO3A polymorphisms rs1536057, re2802292 and rs1935952
- VNTR polymorphism in the promoter region of MAO-A gene
- CACNA1C polymorphism
- CRH receptor (CRHR2's) 3 polymorphisms CRHR2(CA), CRHR2(GT), and CRHR2(GAT)
- SNPs at Chromosome 3 – rs1466846 and rs11130703; Chromosome 5 – rs924134; Chromosome 2 – rs6548036; Chromosome 8 – rs1457463

Reference: Schaffer

Brain regions / circuitry

- HPA dysregulation associated with long-term (>1yr) suicide risk
- Mesolimbic dopaminergic reward pathways: Higher DA activity may favor suicidal bx via incr aggression or behavioral activation. Lower DA activity may mediate through anhedonia and depression
- Deficiency of G-protein alpha-subunits is associated w/ suicide, indep of psych dx
- Activity of protein kinase C, part of the signal transduction pathway, for HTR2A, is low in the PFC of suicides
- Cortical thinning and lower metabolic levels are reported in future suicide attempters
- Decision-making, or willed action → process involves the VMPFC and its connections w/ the amygdala, anterior cingulate, and somatosensory/insular cortices, and connectivity via the underlying white matter
- Fewer serotonin transporter sites and upregulation of HTR1A in VMPFR in the brain of suicides

References: Boldrini

Brain regions / circuitry

- Low serotonergic input to VMPFC may contribute to impaired inhibition, creating a greater propensity to act on suicidal or aggressive feelings
- Lower neuron density in the dorsal PFC, and the ventral prefrontal cortex
- Reduced prefrontal cortical activity serotonin release is associated with suicidal and aggressive behaviors
- Lower regional cerebral blood flow in right temporal and prefrontal brain areas is associated with self-harm or aggressive acts towards others
- Non-depressed, impulsive females with BPD who had attempted suicide or self-mutilated, showed PET hypometabolism in medial orbital frontal cortex bilaterally
- Lower alpha-11C-methyl-L-tryptophan trapping in the orbitofrontal cortex is associated w/ suicidal intent in suicide attempters and with TPH2 SNPs previously associate with suicide
- Lower HTR2A binding index in anxious and depressed suicide attempters; higher HTR2A binding in impulsive suicide attempters. Both seem to normalize with SSRI treatment

References: Boldrini

Brain regions / circuitry

- Problem solving and cognitive flexibility are impaired in suicide. May result from dysfunctional executive decision making related to PFC dysfunction, and impaired connectivity with the anterior cingulate and amygdala
- Low CSF homovanillic acid is found in pts with psychomotor retardation and suicides, indicating a lack of dopaminergic tone and impaired reward circuitry
- Brain activation increased in left insula and decreased in bilateral fusiform gyrus
- Chronic excess of pro-inflammatory cytokines, induced by biological and psychological stressors, leads to constant over-activation of kynurenine pathway
- Neuroinflammation → activates kynurenine pathway → serotonin depletion and stimulation of glutamate neurotransmission, decreased BDNF → impaired neuroplasticity and cognitive deficits
- Decreased serotonin → aggression and impulsivity

References: Boldrini, Lengvenyte, Wislowska-Stanek

Brain regions / circuitry

- Increased metabolism of kynurenic acid into neurotoxic quinolinic acid, an NMDA receptor agonist → glutamatergic system overactivation and decrease in production of BDNF → worsened neuroplasticity and cognitive problems
- Effectiveness of glutaminergic NMDA receptor antagonists, ketamine/esketamine, in decreasing suicide rates suggests the involvement of glutamate. Glutamate may play a role in impulsivity and aggression
- Altered prefrontal area activation patterns associated with impaired decision making, risk reward, and social assessment
- Specific traits (impulsive aggressive behavior) mediate the genetic vulnerability to suicide
- Abnormalities in the serotonin syndrome are more pronounced with more lethal suicidal behavior
- Different findings in alcoholism from depression and suicide indicate distinct serotonin system pathophysiology

References: Wislowska-Stanek, Lengvenyte, Underwood

Potentially affiliated with suicidality

- HPA-axis
- ERK/MAPK
- TPH in dorsal raphe nucleus
- CREB
- BDNF
- FGF
- TrkB
- Allergens
- Cholesterol
- Infections
- Testosterone
- Estrogen
- DHEA
- CSF homovanillic acid
- TNF-alpha
- Default mode network
- Kynurenine-tryptophan pathway
- Quinolinic acid
- CRH
- Acid phosphatase

References: Boldrini, Lengvenyte, Halicka-Maslowska, Vargas-Medrano, Brundin, Schaffer

Neuroimaging changes?

- frontal lobe grey matter volume reduction
- Reduced volume of PFC, OFC, insula, hippocampus, grey matter, white matter, lentiform nucleus, corpus callosum
- reduction in ACC, caudate nucleus, globus pallidus bilaterally
- Less GMV and density across several brain reions – prefrontal, temporal, parietal, occipital cortex, putamen, straitum, lentiform nucleus, insula, midbrain, cerebellum
- Lower WMV in frontal and parietal regions, external capsule, midbrain cerebellum
- Greater WMV on orbital/ventral prefrontal regions of suicide attempts with schizophrenia
- Smaller corpus callosum
- Larger amygdala
- More subcortical, deep white matter, and periventricular hyperintensities
- Lower fractional anisotropy in white matter of left orbitofrontal region

References: Lengvenyte, Halicka-Maslowska, Sudol, Schaffer

	Prefrontal Cortex	Hippocampus	Peripheral Tissue
5-HIAA	-	↑	CSF ↓ platelets ↓
Serotonin transporter	↓	-	↓ platelets
GABA-A receptor	Contradictory information	↑	↓
CRH	↑	↑	↑
CRH receptor type 1	↓		
Cortisol	No data	No data	↑ plasma, CSF
BDNF	↓	↓	↓ serum
IL-1	↑	No data	↑ blond
IL-6	↑	No data	↑ blood, CSF
IL-8	-	No data	↓ blood, CSF
Quinolinic acid	↑	No data	CSF, blood ↑
Cholesterol	Decrease only in violence	-	↓
DNA hypermethylation	↑	↑	↑
miR-124, miR-139, miR-185, miR-195	↑	No data	No data
miR-494, miR-335	↓	No data	No data
miR-19a3p	↑	No data	Blood mononuclear cells ↑

Reference: Wislowska-Stanek

Potential biomarkers?

- Low CSF 5-HIAA (serotonin hypofunction) → favors more lethal suicidal behavior (odds ratio for future suicide in major depression of 4.6), independent of psychiatric diagnosis; associated with short-term (<1yr) suicide risk
- Lower CSF levels of 3-MHPG (norepinephrine metabolite) → predict future suicide attempt or suicide and correlates with higher lethality; possibly via effect of MHPG correlated with impact on hopelessness and depression

References: Boldrini

Potential biomarkers?

- Decreased basal cortisol level (saliva, hair, plasma)
- Decreased evening secretion of cortisol
- Increased CRP in plasma
- Increased hs-CRP in plasma
- Increased neutrophil : lymphocyte ratio
- Increased IL-1beta in blood/postmortem brain
- Increased IL-6 in blood/postmortem brain
- Decreased IL-2 in plasma
- Increased TSPO in brain
- Increased quinolinic acid in plasma, CSF, ACC

References: Boldrini, Lengvenyte

Potential biomarkers?

- Increased 5-HT2A receptor availability in postmortem brain
- Increased 5-HT1A and 5-HT2A binding in neocortex
- Decreased serotonin transporter binding
- Lower levels of kynurenic acid in CSF
- Lower levels of pregnenolone in parietal cortex
- Decreased BDNF in brain
- Decreased BDNF in plasma
- Increased testosterone in CSF in young men
- Decreased testosterone in plasma

References: Boldrini, Lengvenyte, Girgis

Take home points

1. The neurobiology of suicide is not currently well defined.
2. There are numerous identified and potential biological and neuroimaging markers for suicidal behaviors, but none have been translated into clinical practice.

Clinical vignette

What is one thing you could recommend treatment-wise that would reduce this pt's risk of suicide?

Now… depict using the materials in front of you what happens at the synaptic level with this treatment.

Risk Factors of Suicide	Matching Treatment That Decreases the Risk of Suicide
Emotional traits: aggression, impulsivity, pessimism	Lithium (in depression and bipolar disorder, delayed effect), clozapine (schizophrenia)
Early life stress	-
Depression	Ketamine/esketamine (in depression, rapid effect), lithium (in depression and bipolar disorder, delayed effect), electroconvulsive therapy, psychotherapy, transcranial magnetic stimulation
Schizophrenia	Clozapine
Other psychiatric disorders	Psychotherapy
Alcohol dependence and other dependence	Treatment of alcohol or substance abuse

Reference: Wislowska-Stanek

Take home points

1. The neurobiology of suicide is not currently well defined.
2. There are numerous identified and potential biological and neuroimaging markers for suicidal behaviors, but none have been translated into clinical practice.
3. The mechanisms by which some treatments decrease suicidality are not known, but may act through increased BDNF and improved glutamatergic signaling.

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