### Youth Suicide: Evidence-Based Clinical and Community Level Prevention Strategies

Raymond P. Tucker, Ph.D. Assistant Professor of Psychology Louisiana State University Clinical Assistant Professor of Psychiatry Louisiana State University Health Sciences Center/Our Lady of the Lake

### **Goals for Today**

- Provide updated prevalence of suicide in the U.S.
  General population and adolescents
- Discuss theoretical models of suicide
  - Contemporary models applied to adolescents
  - Models specific to minority youth
- Provide direction on how these models can be applied clinically
  - Zero Suicide's minimum standard of care
  - Empirically validated tools to consider using

### Scope of Suicide in the United States

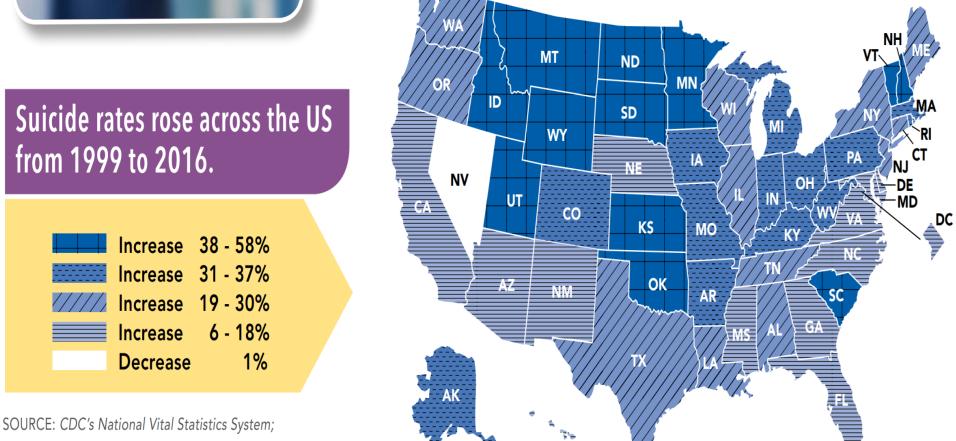


### 11.7 minutes

Rank & Cause of Death	Rate	Deaths
1 Diseases of heart (heart disease)	196.6	635,260
2 Malignant neoplasms (cancer)	185.1	598,038
3 Accidents (unintentional injury)	49.9	161,374
4 Chronic lower respiratory diseases	47.8	154,596
5 Cerebrovascular diseases (stroke)	44.0	142,142
6 Alzheimer's disease	35.9	116,103
7 Diabetes mellitus (diabetes)	24.8	80,058
8 Influenza & pneumonia	16.0	51,537
9 Nephritis, nephrosis (kidney disease)	15.5	50,046
10 Suicide [Intentional Self-Harm]	13.9	44,965
11 Septicemia	12.6	40,613
12 Chronic liver disease and cirrhosis	12.6	40,545
13 Essential hypertension and renal disease	10.3	33,246
14 Parkinson's disease	9.2	29,697
15 Pneumonitis due to solids and liquids	6.1	19,715
- All other causes (Residual; $> 15$ )	169.1	546,313
Homicide (ranks 16th)	6.0	19,362

Cause	Number	Rate
All Causes	32,575	74.9
1-Accidents	13,895	31.9
2-Suicide	5,723	13.2
3-Homicide	5,172	11.9
10-14 yı	rs 436	2.1
l 15-19 y	rs 2,117	10.0
l 20-24 y	rs 3,606	16.1

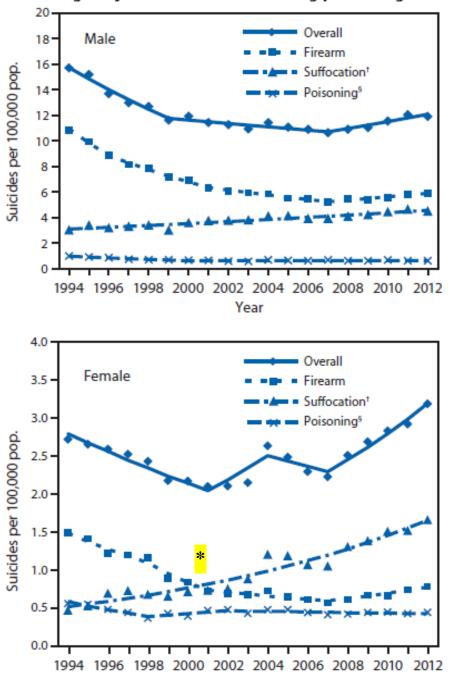
	U.S.A. Suicide Rates 2006-2016 (Rates per 100,000 population) 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016										C	
Group/	2006	2007	2008	(Ka 2000	tes per $2010$	· 100,0	00 pop	oulatio	n) <u>2014</u>	2015	2016	Group/ Age
5-14	0.5	0.5	0.6	0.7	0.7	0.7	0.8	1.0	1.0	1.0	1.1	5-14
15-24	9.9	9.7	10.0	10.1	10.5	11.0	11.1	11.1	11.6	12.5	13.2	15-24
35 44	15.1	15.6	15.9	12.0	16.0	16.2	16.7	16.2	16.6	17.1	17.4	25-34 35-44
35-44 45-54	17.2	17.7	13.9	10.1	10.0	10.2	20.0	10.2	16.6 20.2	17.1 20.3	17.4	33-44 45-54
55-64	14.5	15.5	16.3	16.7	17.5	17.1	18.0	18.1	18.8	18.9	18.7	55-64
65-74	12.6	12.6	13.9	14.0	13.7	14.1	14.0	15.0	15.6	15.3	15.4	65-74
75-84	15.9 15.9	16.3	16.0	15.7 15.6	15.7	16.5	16.8 17.8	17.1	17.5 19.3	17.9	18.2	75-84
85+ 65+	15.9	15.6 14.3	15.6 14.8	15.6	17.6 14.9	16.9 15.3	17.8	18.6 16.1	19.3 16.7	19.4 16.6	19.0 16.7	85+ 65+
Total	11.1	11.5	11.8	12.0	12.4	12.7	12.9	13.0	13.4	13.8	13.9	Total
Men	17.8	18.3	19.0	19.2	20.0	20.2	20.6	20.6	21.1	21.5	21.8	Men
Womer		4.8	4.9	5.0	5.2	5.4	5.5	5.7	6.0	6.3	6.2	Women
White Nonwh	12.4 5.5	12.9 5.6	13.3 5.7	13.5 5.8	14.1 5.8	14.5 5.8	14.8 6.1	14.9 6.0	15.5 6.0	15.8 6.3	15.9 6.8	White NonWh
Black	4.9	4.9	5.2	5.1	5.1	5.3	5.5	5.4	5.5	5.6	6.1	Black
45-64	16.0	16.7	17.5	18.0	18.6	18.6	19.1	19.0	19.5	19.6	19.2	45-64



CDC Vital Signs, June 2018.

U.S.A. Suicide Rates 2006-2016												
Group/				(Ra	tes per	: 100,0	00 pop	oulatio	n)			Group/
Age	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Age
5-14	0.5	0.5	0.6	0.7	0.7	0.7	0.8	1.0	1.0	1.0	1.1	5-14
15-24	9.9	9.7	10.0	10.1	10.5	11.0	11.1	11.1	11.6	12.5	13.2	15-24
25-34	12.3	13.0	12.9	12.8	14.0	14.6	14.7	14.8	15.1	15.7	16.5	25-34
35-44	15.1	15.6	15.9	16.1	16.0	16.2	16.7	16.2	16.6	17.1	17.4	35-44
45-54	17.2	17.7	18.7	19.3	19.6	19.8	20.0	19.7	20.2	20.3	19.7	45-54
55-64	14.5	15.5	16.3	16.7	17.5	17.1	18.0	18.1	18.8	18.9	18.7	55-64
65-74	12.6	12.6	13.9	14.0	13.7	14.1	14.0	15.0	15.6	15.3	15.4	65-74
75-84	15.9	16.3	16.0	15.7	15.7	16.5	16.8	17.1	17.5	17.9	18.2	75-84
85+	15.9	15.6	15.6	15.6	17.6	16.9	17.8	18.6	19.3	19.4	19.0	85+
65+	14.2	14.3	14.8	14.8	14.9	15.3	15.4	16.1	16.7	16.6	16.7	65+
Totol	111	115	110	120	17/	107	120	12.0	12/	120	12.0	Total
Men	17.8	18.3	19.0	19.2	20.0	20.2	20.6	20.6	21.1	21.5	21.8	Men
Women	4.6	4.8	4.9	5.0	5.2	5.4	5.5	5.7	6.0	6.3	6.2	Women
vv mite	12.7	12.7	15.5	15.5	17.1	17.2	17.0	17.2	15.5	15.0	1.5.7	White
Nonwh	5.5	5.6	5.7	5.8	5.8	5.8	6.1	6.0	6.0	6.3	6.8	NonWh
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45-54	17.2	17.7	18.7	19.3	19.6	19.8	20.0	19.7	20.2	20.3	19.7	45-54
55-64	14.5	15.5	16.3	16.7	17.5	17.1	18.0	18.1	18.8	18.9	18.7	55-64
65-74	12.6	12.6	13.9	14.0	13.7	14.1	14.0	15.0	15.6	15.3	15.4	65-74
75-84	15.9	16.3	16.0	15.7	15.7	16.5	16.8	17.1	17.5	17.9	18.2	75-84
85+	15.9	15.6	15.6	15.6	17.6	16.9	17.8	18.6	19.3	19.4	19.0	85+
65+	14.2	14.3	14.8	14.8	14.9	15.3	15.4	16.1	16.7	16.6	16.7	65+
Total	11.1	11.5	11.8	12.0	12.4	12.7	12.9	13.0	13.4	13.8	13.9	Total
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		10	10			~ 1						Women
White	12.4	12.9	13.3	13.5	14.1	14.5	14.8	14.9	15.5	15.8	15.9	White
Nonwh	5.5	5.6	5.7	5.8	5.8	5.8	6.1	6.0	6.0	6.3	6.8	NonWh
Black	4.9	4.9	5.2	5.1	5.1	5.3	5.5	5.4	5.5	5.6	6.1	Black
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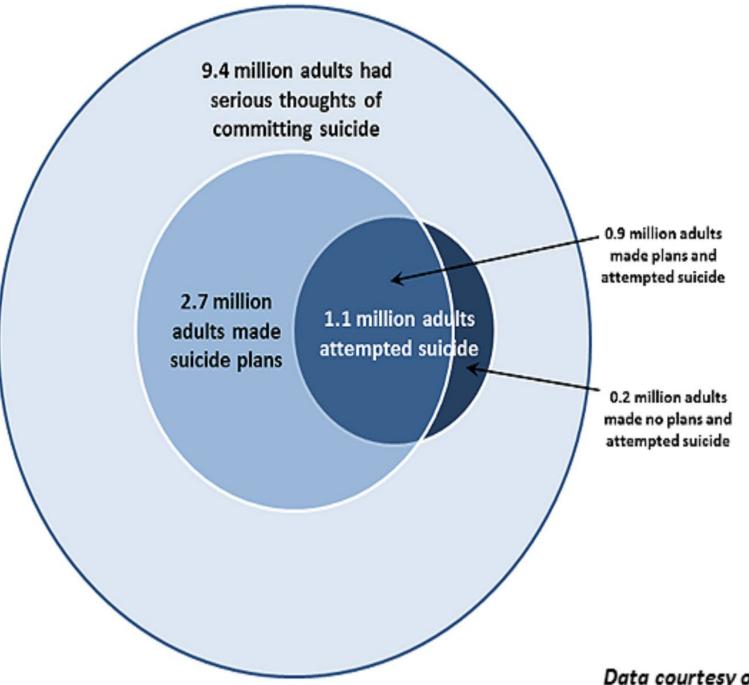
Year

#### FIGURE. Age-adjusted suicide rates among persons aged 10-24 years, by sex and mechanism — United States, 1994-2012\*

\*Suffocation surpasses firearm suicides

#### Prevalence of Suicidal Thoughts and Behaviors

- 81% of suicide deaths ages 10-24 are male
- High school students:
  - -15.8% history of active suicidal thoughts
  - -12.8% history of planning
  - -7.8% attempt
  - 2.4% report attempt that needed medical intervention



Data courtesy of SAMHSA

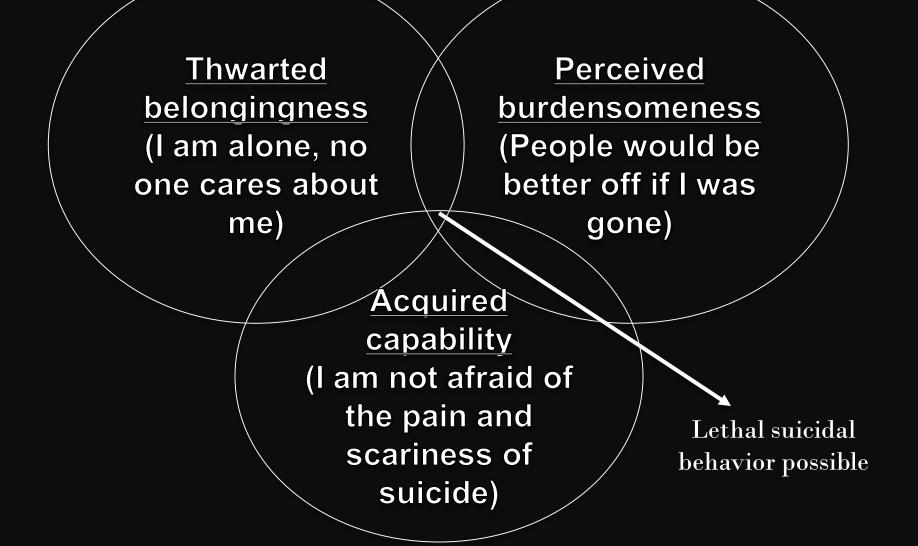
### Why do youth die by suicide?

### **Interpersonal Theory of Suicide**

<u>Thwarted</u> <u>belongingness</u> (I am alone, no one cares about me) Perceived burdensomenes <u>s</u> (People would be better off if I was gone)

When someone may desire suicide an have Serious suicidal thoughts

### **Interpersonal Theory of Suicide**



## 3-Step Theory (3ST)

• Step 1

When someone may desire suicide an have Serious suicidal thoughts

Psychological Pain and <u>Misery</u>

Hopelessness

## 3-Step Theory (3ST)

• Step 2

Suicidal thinking intensifies and may result in planning or confidence in future suicide attempt

#### Psychological Pain and Misery

Connection

Connection = broadly defined (social, spiritual, personal meaning)

### 3-Step Theory (3ST)

• Step 3

Suicide attempt will occur when an individual has the capacity to make one

Dispositional Capacity (pain sensitivity, fearlessness)

Acquired Capacity

(fearlessness, painful and provocative event

exposure)

Practical Capacity (owning and having familiarity with means for suicide)

### Take Home

- Rare event, but increasing in prevalence
- It is very "hard" to make a fatal attempt
  - Most having thoughts will attempt and very few will die
  - Most who make one attempt do not make another attempt
- We are often are cued in on what predicts suicidal thoughts but less so suicide attempts

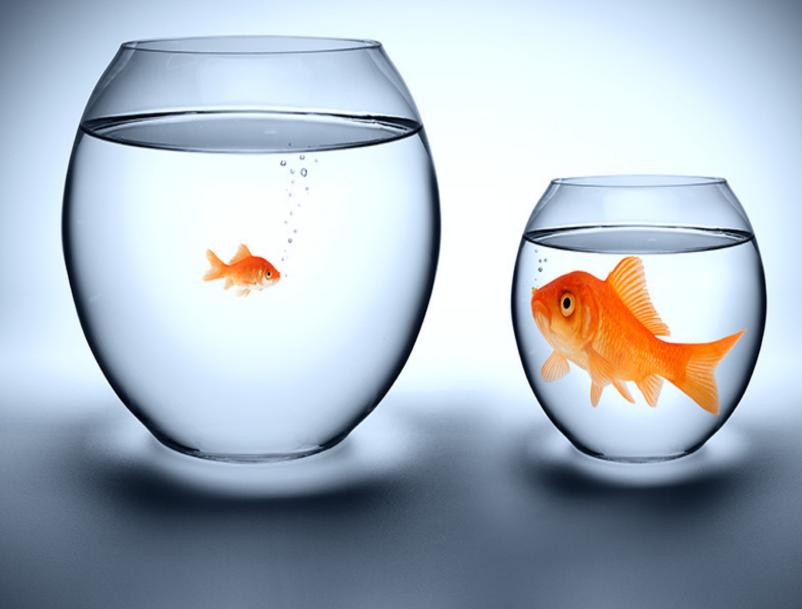
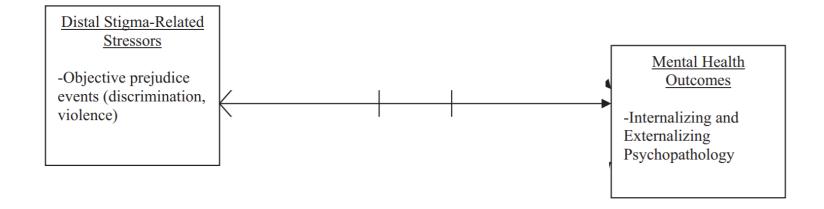


Figure 2. Integrative mediation framework of group-specific and general psychological processes.





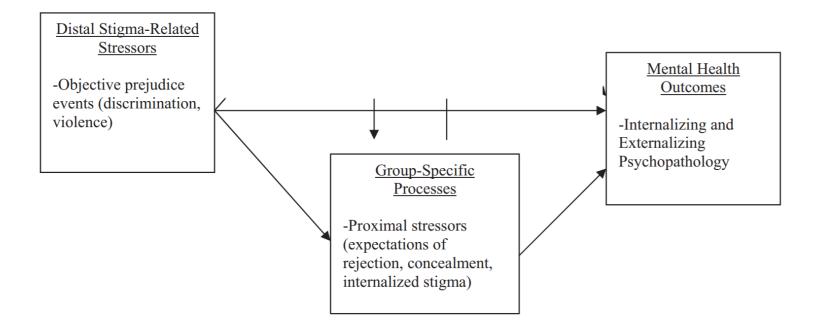


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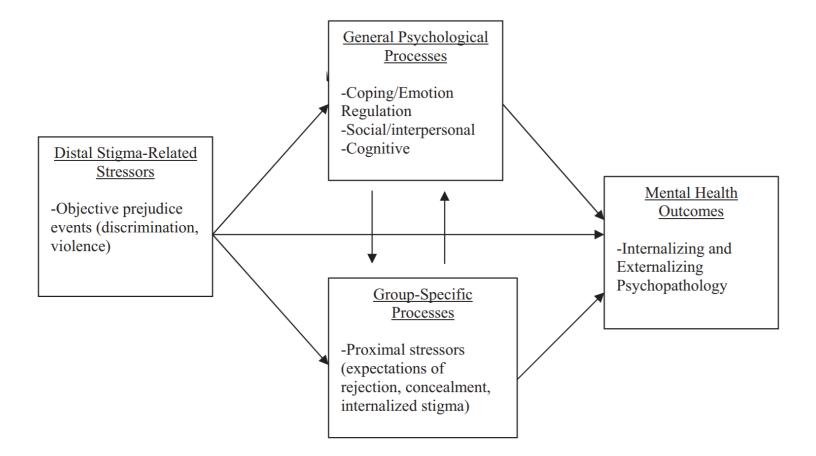


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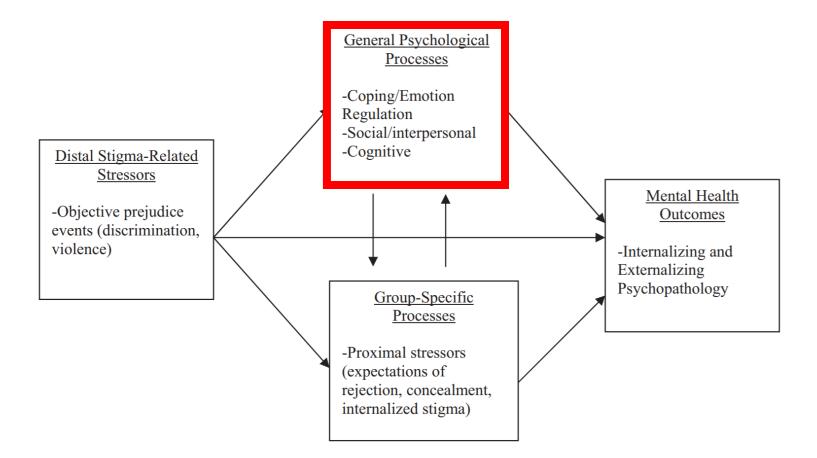
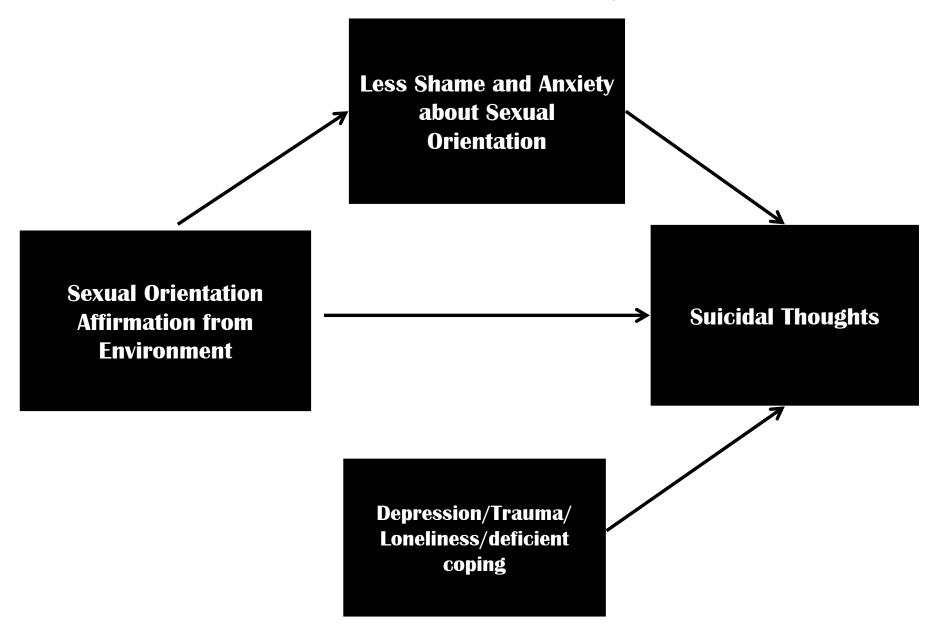


Figure 2. Integrative mediation framework of group-specific and general psychological processes.

#### Lesbian, Gay, Bisexual Youth



#### Lesbian, Gay, Bisexual Youth



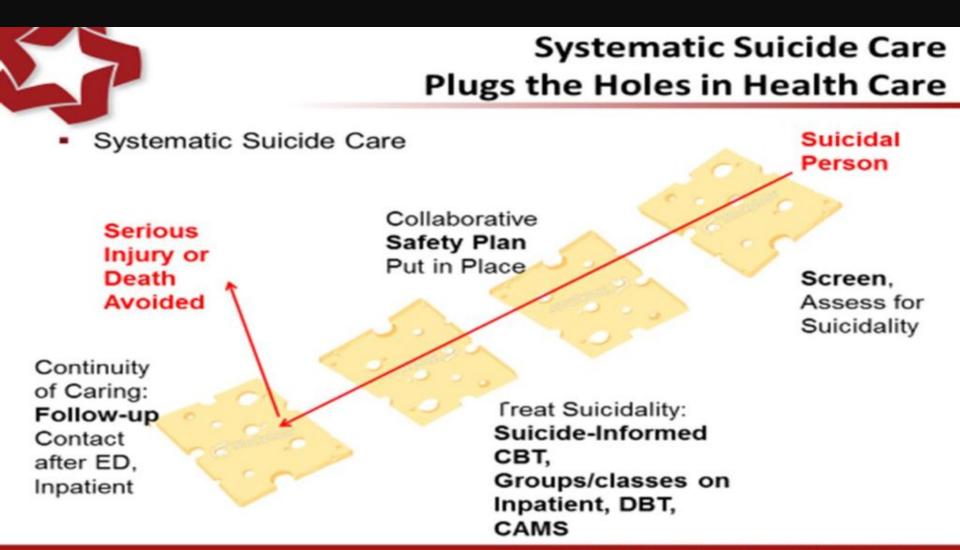




### **Minimum Standard of Care**

### ZEROSUICIDE IN HEALTH AND BEHAVIORAL HEALTH CARE

Substance Abuse and Mental Health Services Administration (SAMHSA)



ID 2010 NATIONAL ACTION ALLIANCE FOR SUICIDE PREVENTION. ALL RIGHTS RESERVED.

### Screening

# Semi-Structured Interviewing

Safety Planning

Means Counseling



### **Broad Symptom Measures with Critical Items**

- Suicidal ideation
- Hopelessness
- Non-Suicidal Self-Injury (NSSI)
- Psychological misery/pain

#### Child/Adolescent

Behavior Assessment System for Children Child Behavior Check List

## Screening

### **Narrow Symptom Measures (Brief)**

- Depression
  - Critical item
  - Total score/clinical cut-offs

#### Child/Adolescent

Child Depression Inventory (CDI) Patient Health Questionairre-9



#### Association between suicidal ideation and suicide: meta-analyses of odds ratios, sensitivity, specificity and positive predictive value\*

Catherine M. McHugh, Amy Corderoy, Christopher James Ryan, Ian B. Hickie and Matthew Michael Large

#### Background

The expression of suicidal ideation is considered to be an important warning sign for suicide. However, the predictive properties of suicidal ideation as a test of later suicide are unclear.

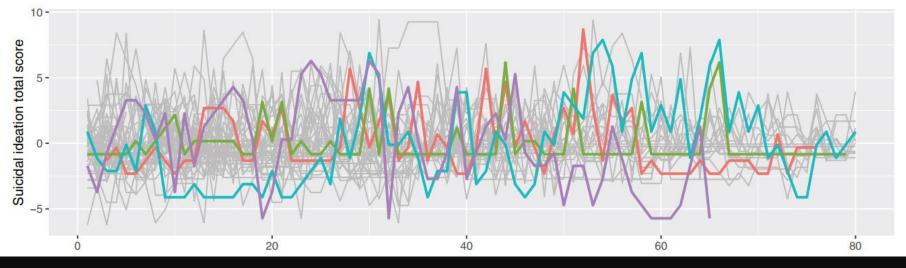
#### Conclusions

Estimates of the extent of the association between suicidal ideation and later suicide are limited by unexplained betweenstudy heterogeneity. The utility of suicidal ideation as a test for later suicide is limited by a modest sensitivity and low PPV.

The current paper advances knowledge of the association between suicidal ideation and suicide by reporting the pooled sensitivity and specificity of suicidal ideation for suicide. The main finding is the limited sensitivity of suicidal ideation for suicide, such that approximately 60% of people who go on to die by suicide have not expressed suicidal ideation at a specified earlier ~64% of attempters have seen a provider in the month prior to attempt ~38% have seen a provider in the week prior







suicidal ideation? Participants in Study 1 were 54 adults who had attempted suicide in the previous year and completed 28 days of ecological momentary assessment (EMA; average of 2.51 assessments per day; 2,891 unique assessments). Participants in Study 2 were 36 adult psychiatric inpatients admitted for suicide risk who completed EMA throughout their time in the hospital (average stay of 10.32 days;

For nearly all participants, suicidal ideation varied dramatically over the course of most days: more than 1-quarter (Study 1 = 29%; Study 2 = 28%) of all ratings of suicidal ideation were a standard deviation above or below the previous response from a few hours earlier and nearly all (Study 1 = 94.1%; Study 2 = 100%) participants had at least 1 instance of intensity of suicidal ideation changing by a standard deviation or more from 1 response to the next. (b) Across both studies, well-known risk factors for

a few hours and correlated with suicidal ideation, but were limited in predicting short-term change in suicidal ideation. These studies represent the most fine-grained examination of suicidal ideation ever conducted. The results advance the understanding of how suicidal ideation changes over short periods and provide a novel method of improving the short-term prediction of suicidal ideation.

# Screening

# Semi-Structured Interviewing

#### Adult

## Columbia Suicide Severity Rating Scale Self-Injurious Thoughts and Behaviors Interview

# Semi-Structured Interviewing

### <u>Child/Adolescent</u>

Columbia Suicide Severity Rating Scale Self-Injurious Thoughts and Behaviors Interview

## **Semi-Structured Interviews**

#### <u>Columbia Suicide Severity Rating Scale</u>

• Fairly brief (screener), good current presentation

http://suicidepreventionlifeline.org/wpcontent/uploads/2016/09/Suicide-Risk-Assessment-C-SSRS-Lifeline-Version-2014.pdf

#### Self-Injurious Thoughts and Behaviors Interview (SITB-I)

- Comprehensive suicide/NSSI interview
- Brief version as well

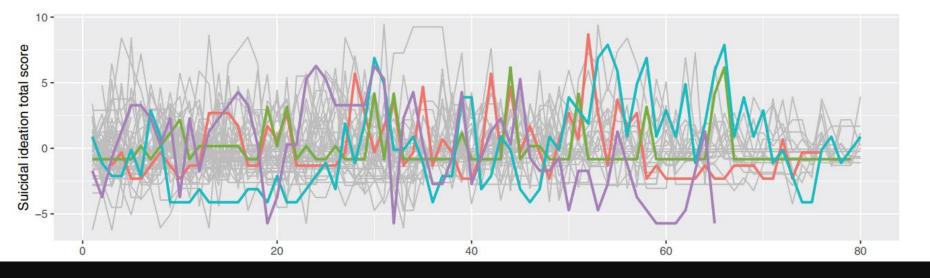
http://nocklab.fas.harvard.edu/tasks

# Screening

# Semi-Structured Interviewing

Safety Planning

Means Counseling



"Given the presence of both long and short-term processes, we recommend that clinicians thoroughly assess lifetime suicidal ideation and help patients with a suicide history create safety plans (Stanley & Brown, 2012) to prevent or slow down the typically rapid progress down the pathway to suicide... people may not have access to their own degree of risk days or perhaps even hours prior to attempting."

#### Patient Safety Plan Template

•	Narning signs (thoughts, images, mood, situation, behavior) that a crisis may be developing:
1	
2	
3	
	nternal coping strategies – Things I can do to take my mind off my problems without contacting another person (relaxation technique, physical activity):
3	
Step 3: P	People and social settings that provide distraction:
1. Name	Phone
2. Name	Phone
3. Place	4. Place
Step 4: P	People whom I can ask for help:
1. Name	Phone
2. Name	Phone
3. Name	Phone
Step 5: P	Professionals or agencies I can contact during a crisis:
1. Clinician	Name Phone
	Pager or Emergency Contact #
	Name Phone
Clinician	Pager or Emergency Contact #
3. Local Urg	gent Care Services
	Care Services Address
-	Care Services Phone
4. Suicide P	Prevention Lifeline Phone: 1-800-273-TALK (8255)
Step 6: N	Naking the environment safe:
1	
2	
Safety Plan Temp	nplate @2008 Barbara Stanley and Gregory K. Brown, is reprinted with the express permission of the authors. No portion of the Safety Plan Template may be reproduced without their express, written permission. You can contact the authors at bhs2@columbia.edu or gregbrow@mail.med.upenn.edu.

The one thing that is most important to me and worth living for is:

#### **Original Investigation**

**ONLINE FIRST** 

July 11, 2018

## **Comparison of the Safety Planning Intervention** With Follow-up vs Usual Care of Suicidal Patients Treated in the Emergency Department

Barbara Stanley, PhD<sup>1,2</sup>; Gregory K. Brown, PhD<sup>3</sup>; Lisa A. Brenner, PhD<sup>4,5</sup>; <u>et al</u>

 $\gg$  Author Affiliations

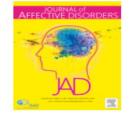
JAMA Psychiatry. Published online July 11, 2018. doi:10.1001/jamapsychiatry.2018.1776

Patients who visited the emergency department for suicide-related concerns and received the Safety Planning Intervention with structured follow-up telephone contact were half as likely to exhibit suicidal behavior and more than twice as likely to attend mental health treatment during the 6-month follow-up period compared with their counterparts who received usual care following their ED visit.



Journal of Affective Disorders

Volume 212, 1 April 2017, Pages 64-72



Research paper

Effect of crisis response planning vs. contracts for safety on suicide risk in U.S. Army Soldiers: A randomized clinical trial 🛠

Craig J. Bryan <sup>a, b</sup> A ⊠, Jim Mintz <sup>c</sup>, Tracy A. Clemans <sup>a, b</sup>, Bruce Leeson <sup>d</sup>, T. Scott Burch <sup>d</sup>, Sean R. Williams <sup>a, b</sup>, Emily Maney <sup>a, b</sup>, M. David Rudd <sup>a, e</sup>

#### Show more

https://doi.org/10.1016/j.jad.2017.01.028

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Crisis response planning was associated with significantly faster decline in suicide ideation (F(3,195)=18.64, p<0.001) and fewer inpatient hospitalization days (F(1,82)=7.41, p<0.001) following 6 month follow-up. Over 80% still had a physical copy of the plan at follow-up.

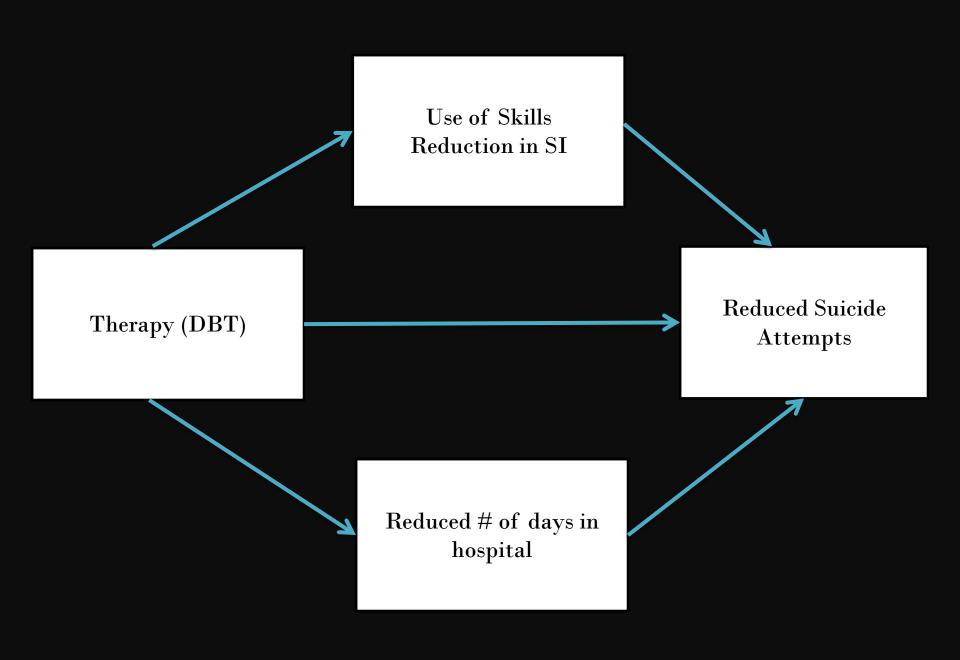
<u>Suicide Attempt</u>: Crisis response: 5% Suicide contract: 19%



# **Inpatient Hospitalization**

## **Risk Factor?**

- No evidence that inpatient hospitalization decreases likelihood for later suicidal behavior
- 48-72 hour window post-discharge
- Longitudinal studies:
  - Significant predictor of death by suicide even when adjusting for other risk factors
- Inpatient hospitalization ≠ Treatment



## See the Resource Sheet for More Training Resources



## Tips for Means Safety with Teenagers

- Only person who can guarantee safety is the youth (not the parents or facility)
  - Do not only consider "tightening the safety net" at home
  - Collaborate (don't prescribe) on a plan with the youth, one they may actually use
  - Have the youth communicate the plan with adults
- Only youth knows who can be a support and who they trust

# **Beyond Safety Planning**

- What do you do for a youth that leaves your facility?
  - Family leave/weekends
  - Discharge back to the family

#### **Original Investigation**

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# SAFE-VET

• <u>https://www.hsrd.research.va.gov/for\_researc</u> <u>hers/cyber\_seminars/archives/1075-notes.pdf</u>

• Risk assessment + safety plan + weekly case management calls until engaged in care

# **Caring Contacts**

- Non-demand letters expressing care and support
  - Sent following first meeting
- Born from the sending of non-demand letters to military personnel

# Implementation

#### Hunter Area Toxicology Service



Dear

It has been a short time since you were here at the Newcastle Mater Hospital, and we hope things are going well for you.

If you wish to drop us a note we would be happy to hear from you.

Best wishes,

Dr Andrew Dawson



Dr Ian Whyte

Newcastle Mater Misericordiae Hospital Locked Bag 7, Hunter Regional Mail Centre NSW 2310 Phone: 49 211 283 Fax 49 211 870 Professional Psychology: Research and Practice

In the public domain http://dx.doi.org/10.1037/pro0000134

#### Implementation Methods for the Caring Contacts Suicide Prevention Intervention

Mark A. Reger VA Puget Sound Health Care System, Tacoma, Washington, and University of Washington

Raymond P. Tucker VA Puget Sound Health Care System, Tacoma, Washington, and Oklahoma State University

Angela D. Keen VA Veterans Integrated Service Network, Pittsburgh, Pennsylvania

Bridget B. Matarazzo Rocky Mountain Mental Illness Research Education Clinical Center, Denver, Colorado, and University of Colorado David D. Luxton University of Washington

Katherine Anne Comtois University of Washington

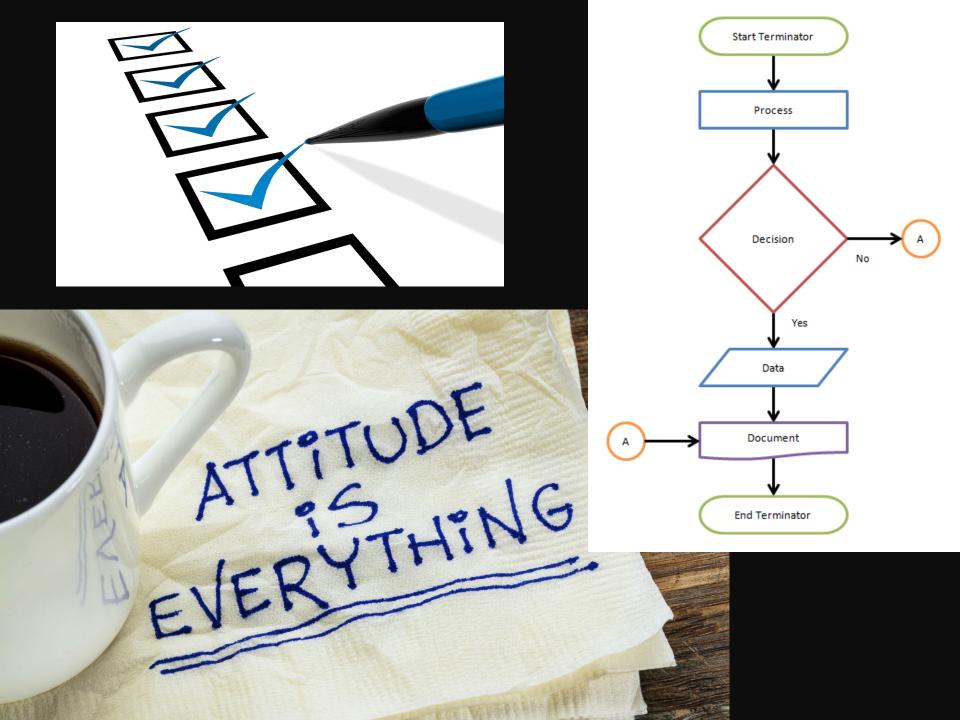
Sara J. Landes Central Arkansas Veterans Health Care System, Little Rock, Arkansas, and University of Arkansas for Medical Sciences

> Caitlin Thompson Mental Health Services, Washington, DC, and University of Rochester

# Take Home

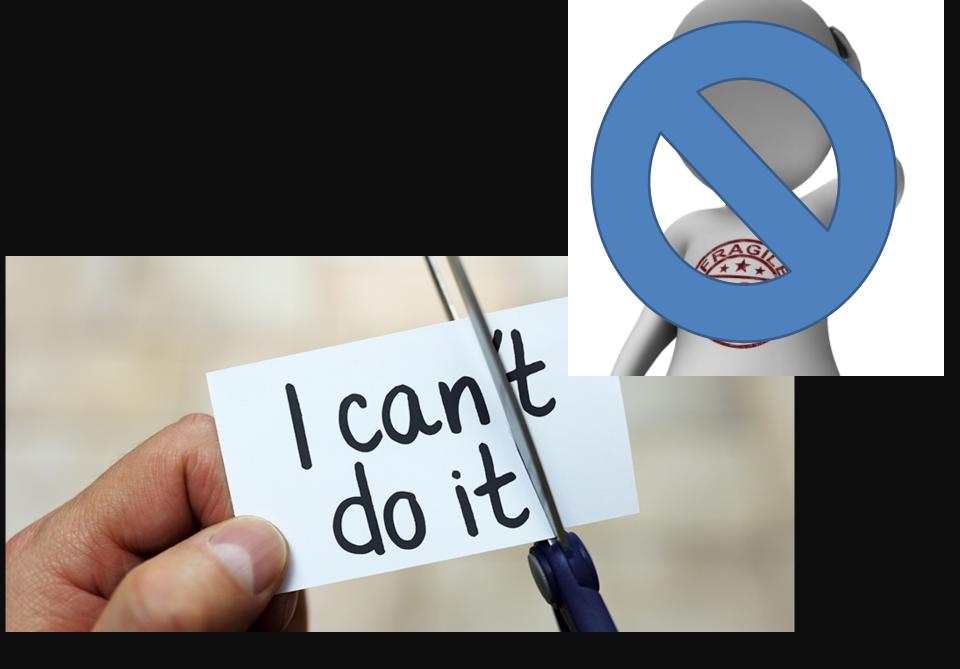
- Brief screening with "critical items"
- Standardized suicide risk interviewing
  - Great free ones out there
  - Careful to rely on just "yes" to suicidal thoughts
- Safety planning and means safety counseling
  - Further ideographic assessment
  - Fluoride in the water for crisis coping
  - If deployed like a no suicide contract, likely just as iatrogenic
- Follow-up appears to be important
  - Case management calls
  - Caring Contacts







# ME US YOU



# **Long-Term** Suicide Prevention

# **Psychosocial Interventions**



# **Replicated RCT Support**

• Dialectical Behavior Therapy (DBT)

• Cognitive Therapy for Suicide Prevention (CT-SP & B-CBT)

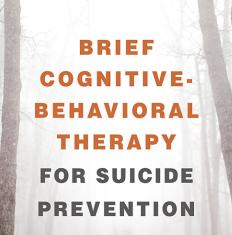
• Collaborative Assessment and Management of Suicidality (CAMS)

# **Consistency Across All Three**

- Collaborative yet firm relationship with patient
- Suicide-specific
  - Assessment
  - Case conceptualization
  - Management (safety planning)
  - Treatment
- Focus on both coping or "surviving" AND building a life worth living
- All have adaptations for inpatient treatment, intensive outpatient treatment, etc.

## **Residential Facilities**





Craig J. Bryan and M. David Rudd

DBT Skills Training Manual

Marsha M. Linehan

#### SECOND EDITION

The CAMS Framework

## MANAGING SUICIDAL RISK

A Collaborative Approach

David A. Jobes

#### **Patient Safety Plan Template** Step 1: Warning signs (thoughts, images, mood, situation, behavior) that a crisis may be developing: 1. \_\_\_\_ 2. 3. Step 2: Internal coping strategies - Things I can do to take my mind off my problems without contacting another person (relaxation technique, physical activity): 1. \_ 2. \_\_\_\_\_ 3. Step 3: People and social settings that provide distraction: 1. Name Phone Phone 2. Name 4. Place Place Step 4: People whom I can ask for help: 1. Name Phone 2. Name Phone 3. Name Phone Step 5: Professionals or agencies I can contact during a crisis: Clinician Name Phone Clinician Pager or Emergency Contact # \_\_\_\_\_ 2. Clinician Name Phone Clinician Pager or Emergency Contact # 3. Local Urgent Care Services Urgent Care Services Address Urgent Care Services Phone 4. Suicide Prevention Lifeline Phone: 1-800-273-TALK (8255) Step 6: Making the environment safe: 1 2. Safety Plan Template ©2008 Barbara Stanley and Gregory K. Brown, is reprinted with the express permission of the authors. No portion of the Safety Plan Template may be reproduced without their express, written permission. You can contact the authors at bhs2@columbia.edu or gregbrow@mail.med.upenn.edu.

The one thing that is most important to me and worth living for is:



# **Thanks For Your Time!**

## Mitigation of Suicidal Behavior (MOSB) Laboratory



Home

Our Research

Our Team

Resources

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