A Modern and Rational Approach to Suicide Prevention: General Strategies and Special Populations

Tyler Black, MD, FRCPC
Medical Director, Emergency Psychiatry, BC Children’s Hospital
Associate Clinical Professor, University of British Columbia (Dept. Psychiatry)
Outline & Declarations

1. Epidemiology of Suicide
2. Suicide and Addictions
3. Motivations for Suicide
4. “Predicting” Suicide
5. Evidence Based Suicide Prevention
Declarations:
None

→ IG @chasiuthecat
Epidemiology of Suicide

In America and Canada

Citation: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2018 on CDC WONDER Online Database, released in 2020. Data are from the Multiple Cause of Death Files, 1999-2018, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at http://wonder.cdc.gov/ucd-icd10.html
Historical Look at Suicide

Suicide Rates in America and Canada Since 1900

Suicide Rate (per 100,000 per year)

- WWI
- FLU
- G.DEP
- POSTWAR PROSPERITY
- VIETNAM
- AFGHANISTAN
- REC

Historical Look at Suicide

Suicide Rates in America and Canada Since 2000

Suicide Rate (per 100,000 per year)


2018 14.8
Suicide Rate by Year and Sex (CDC), US 1999-2018

Suicide Rate (per 100,000 per year)

- Male: ↑ 29.3%
- Female: ↑ 55.4%
Indigenous Americans Are Severely Overrepresented in Suicide

**Suicide Rate by CDC Race Category & Age ('13-'18)**

![Graph showing suicide rates by age and race category from 2013 to 2018.](image-url)
Canadian Indigenous Over-representation of Suicide

Suicide among First Nations people, Métis and Inuit (2011-2016): Findings from the 2011 Canadian Census Health and Environment Cohort (CanCHEC), Statistics Canada
“Indigenous” is NOT a risk factor for suicide

These populations are over-represented due to systemic barriers and discrimination.

Odds Ratio of Suicide Relative to Non-First Nations, Metis, Inuit

Suicide among First Nations people, Métis and Inuit (2011-2016): Findings from the 2011 Canadian Census Health and Environment Cohort (CanCHEC), Statistics Canada
Suicide and Addictions
Suicide and Addictions

- Often difficult to determine intent of death in overdose

**Substance factors for suicide deaths (highly confounded):**
  - Alcohol – 8x (4x @ 20y, up to 50x at 60y+)
  - Opiates – 13x
  - Polysubstance Use – 17x

**Co-occurring mental health disorders (highly confounded):**
  - Major Depressive Disorder
  - Bipolar Disorder
  - Schizophrenia
  - Posttraumatic Stress Disorder
  - Personality Disorders

Motivations for Suicide

Making the 1890’s relevant again
Émile Durkheim
French Sociologist
1858 - 1917
Motivations for Suicide

- Chaotic response to external pressure
- Controlled response to external pressure

- Connected to Society (SOCIOISTIC)
- Isolated from Society (ANOMIC)
- Isolated from Society (EGOISTIC)
- Connected to Society (FATALISTIC)
Importance of Motivation

- Most suicide interventions address *anomic* suicidal ideation
  - “Safety planning”; distraction, call someone…
  - Suicide hotlines, bridge posters

- If you understand the motivation, you can target your intervention, or recognize when simple “safety planning” will not reduce risk
Motivations for Suicide

Chaotic response to external pressure

Connected to Society

SOCIOISTIC

Controlled response to external pressure

Isolated from Society

ANOMIC

EгоISTIC

FATALISTIC
“Sometimes I feel as if I should have a punch-in time clock before I walk out on stage”

“I can't stand the thought of Frances becoming the miserable, self-destructive, death rocker that I've become.”
Real World Examples

Anomic Suicidal Motivation

- School pressures
- Social pressures
- Family losses/changes
Motivations for Suicide

Connected to Society

Chaotic response to external pressure

Isolated from Society

Controlled response to external pressure

SOCIOSTIC

ANOMIC

EGOISTIC

FATALISTIC
Motivations – Hopeless (Fatalistic)

Course of ALS (Lou Gehrig’s Disease):
- Reduced dexterity
- Foot drop/wrist drop
- Slurred speech
- Muscle spasms
- Loss of Mobility
- Depression, anxiety
- Muscle atrophy
- Difficulties swallowing
- Impaired breathing
- Death
Real World Examples

Fatalistic Suicidal Motivation

- Hopelessness about the future
- Repeated disappointments
- Chronic illness
- End of life approaching
- Upcoming predictable hardship
Motivations for Suicide

SOCIOISTIC
Connected to Society

Chaotic response to external pressure

ANOMIC

Isolated from Society

EGOISTIC

Controlled response to external pressure

FATALISTIC
Motivations – Isolation (Egoistic)

- Not connected to others or community
Real World Examples

Egoistic Suicidal Motivation

- isolated communities
- bullying
- LGBT isolation/victimization
- victims of trauma
- new role after divorce/widowed
- hardship in social navigation
Motivations for Suicide

- Chaotic response to external pressure
  - ANOMIC
- Controlled response to external pressure
  - FATALISTIC
- Connected to Society
- Isolated from Society
  - SOCIOSTIC
  - EGOISTIC
Motivations – For others (Socioistic)

- The opposite of Egoistic suicide, the individual is entirely focused on the effect on their community, family, or others
Real World Examples

Socioistic Suicidal Motivation

- protecting parents, spouses, other loved ones
- political suicide
- financial suicide for spouse/relative
- remorse over perceived infraction
- suicide in shame
- revenge
“Predicting” Suicide

Ominous quotation marks
Known Predictive Risk Factors for Suicide

- Previous episodes of any self harm (HR 1.68, CI 1.38-2.05)
- Previous reported suicidal intent (HR 2.7, CI 1.91-3.81)
- Physical health problems (HR 1.99, CI 1.16-3.43)
- Male gender, America (HR 3.5)


Known Predictive Risk Factors for Suicide

- All four risk factors 18x the risk of suicide
  - "LOW RISK" (female no health problems / SI / SA)
  - "HIGH RISK" (male, health problems / SI / SA)
Known Predictive Risk Factors for Suicide

Why Prediction Ultimately Fails

Person X is at “high risk of suicide”

99.901% won’t die of suicide

Person X is at “low risk of suicide”

99.995% won’t die of suicide
Predicting suicide

- Only 33% of suicides would be predicted by any scale as “highest risk”
- 25-50% of all suicides would occur in people identified at “lowest risk”

- SUICIDE RISK PREDICTION IS NOT THE GOAL
The Context of Risk Factors

It is true that there are well known risk factors:

- age
- sex
- cultural groups of overrepresentation
- prior psychiatric history
- gun ownership
- family history of suicide
- chronic medical illness… etc…
- mental health history
- addictions

BUT….
The Context of Protective Factors

- Though less studied, just as important in risk balance
  - Positive self-concept
  - Strong family support
  - Good communication / therapeutic relationship
  - Showing improvement
  - Hopefulness / Effort towards the future
  - Positive Peer groups
  - “lack of” risk factors

AND....
ANYTHING COULD REPRESENT INCREASED OR DECREASED RISK

- Literally any any any risk/protective factor has context.

- CONTEXTUAL, individualized
  - Divorce
  - Mental Illness
  - Relationship with Parents
  - Transgender
Everyone wants to know “what’s the risk?”

**WHAT MAKES PEOPLE FEEL SECURE**

**WHERE MOST EFFORTS TARGET**

**HIGH RISK = MORE/QUICKER SERVICE**

**NOT CURRENTLY POSSIBLE**
Add protective factors!

Remove risk factors!

Average Risk

100% Certain Imminent Risk
High Risk
Mildly High Risk

Mildly Low Risk
Low Risk
No Risk

OMED2020
Evidence Based Suicide Prevention

What we need to know
birth environment, welfare of parents, intergenerational trauma
poverty, child abuse and neglect
early school stress, early childhood illnesses, bullying
school stress, relationship navigation, sexuality/orientation
graduation (family, school), occupation, transition
employment, domestic abuse, sexual assault
marriage, divorce, friendship, parenthood
loss of friends, employment, partners, health, end of life

mental health
physical health

systemic barriers and discrimination
trauma and abuse
economy and security

access to dangerous means

Stress

Hopelessness

Crisis Hotlines
Suicide Risk Assessment
Hospitalization for Suicidality
Post-Attempt Suicide Interventions
Addressing socioeconomic and educational poverty is #suicideprevention

"Cancer patients living in a socioeconomically vulnerable environment have higher suicide risk"

Socioeconomic predictors of suicide risk among cancer pa...
To assess the socioeconomic predictors of suicide risk among cancer patients in the United States.Cancer patient...
sciencedirect.com
Tyler Black, MD @tylerblack32 · Sep 20

Preventing sexual assaults is #SuicidePrevention

"Hazard ratios for military sexual trauma were 1.69 (95% CI=1.45, 1.97) among men and 2.27 (95% CI=1.76, 2.94) among women."

Military Sexual Trauma and Suicide Mortality
The Veterans Health Administration health system uses a clinical reminder in the medical record to...

sciencedirect.com
Ending child mistreatment is #suicideprevention

"Sexual (...OR=3.73...) physical (...OR=4.11...) and emotional abuse (...OR=3.98...), as well as physical neglect (...OR=3.42...), were associated with [Suicide Attempts]"

Childhood trauma and suicide attempt: A meta-an... Childhood trauma (CT) is a modifiable risk factor for lifetime suicide attempts (SA). However, the extent ... sciencedirect.com
"Individuals with ... disability impacting ADL were observed as being [4X more likely] to have attempted suicide... those with multiple disabilities were [8X] more likely..."

Physical disability and suicide: recent advancement...
Recent research indicates a heightened risk of suicide in this population, a concern given that ...
sciencedirect.com
Questions? Discussion?

dr.tylerblack@gmail.com
twitter: @tylerblack32

→ IG @chasiuthecat