Suicide in Children and Adolescents
Risks, Ideations, Behaviors

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Objectives

1.) Discuss risk factors associated with suicide in children and adolescents

2) Name at least one screening tool that is used by professionals to evaluate suicide risk in children and adolescents

3) Discuss research findings regarding the relationship between psychotropic medications and suicide in children and adolescents

4) Understand what other behaviors need to be considered with a child is evaluated for suicide risk
Suicidality

Second leading cause of death in age 10-24 Approximately 2K suicides each year in adolescents

Third leading cause of death, all children all age groups

In 2007 -14.5% grades 9-12 reported ideation and 6.9% reported at least one suicide attempt

Completed suicide rare prior to puberty but risk increases in teen years

Overwhelming (90%) have a psychiatric disorder, and more than half have had the disorder for 2 years

Other medical/psychological/social factors are all important
Usually Stress Events Preceded Suicides

- Loss of romantic relationship
- Problems in school or problems with authority
- Family difficulties

- Newly recognized stressors
- Bullying
- Sexual orientation not supported by parents
- Victims of abuse
Risk Factors

Older adolescents and male
Mood disorders
Previous attempt more predictive in males
Substance use
Family pathology and family suicidal behavior
African American have lowest suicide rate in adolescents
Native American highest suicide rate
Hispanic rate greater than Caucasian
Suicidal Ideation

Very common in children and adolescents and is not always associated with other psychopathology

Ideation more common in children with Disruptive Disorders, Mood Disorder, and Panic Disorders
Suicide Attempt

Attempts are more common in girls than boys (1.6: 1)

Estimated that 2 million adolescents have a suicide attempt yearly and almost 700K are seen for medical evaluation.

Attempt usually occur in context of brief adjustment reaction.

Impulsivity is largest clinical factor of concern (followed by substance use).

An actual attempt increases boys risk of eventually completing suicide.
Suicide Attempt

Many adolescent who have serious attempt never will attempt again

And only half of all completed suicides have made a known suicide attempt before completed suicide
AACAP warns against using “gesture” as it minimizes potential risk

We can not predict future suicidal behavior! We do have and risk factors
Risk Factors

family history of suicide attempts
exposure to violence
impulsivity
aggressive or disruptive behavior
access to firearms
bullying
feelings of hopelessness or helplessness
acute loss or rejection
Risk for males

Previous suicide attempts
Age 16 or older
Associated mood disorder
Associated substance abuse
Females

Mood Disorders
Previous suicide attempts
History of abuse
Completed Suicide Methods

Firearms
Hanging Suffocation
Poisoning/toxic ingestion
Solid line indicates the trend in the rate of suicide by age among boys and the dashed line indicates the trend in the suicide rate by age among girls.
Prevalence rate (%)

- 2003: 16.9 (black) and 8.5 (gray)
- 2005: 16.9 (black) and 8.4 (gray)
- 2007: 14.5 (black) and 6.9 (gray)

- Black bar: Seriously considered attempting suicide
- Gray bar: Made a suicide plan
- Light gray bar: Attempted suicide
- Dark gray bar: Suicide attempt treated by a doctor or nurse

Source: http://www.cdc.gov/HealthyYouth/yrbs/pdf/yrbs07_us_suicide_related_behaviors_trend.pdf
Assessment

Recommend CSSRS or SAD PERSONAS for adolescents

If found to be low risk, a safety plan should still be established parents notified, reduce means

“No Suicide Contracts” – No data to support using

Suicide resources- 1800 273 TALK

High risk patients may warrant inpatient or more acute treatment
# COLUMBIA-SUICIDE SEVERITY RATING SCALE (C-SSRS)

**Risk Assessment Version**

**Instructions:** Check all risk and protective factors that apply. To be completed following the patient interview, review of medical records, and/or consultation with family members and/or other professionals.

<table>
<thead>
<tr>
<th>Suicidal and Self-Injurious Behavior (Past week)</th>
<th>Clinical Status (Recent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual suicide attempt</td>
<td>□ Hopelessness</td>
</tr>
<tr>
<td>□ Yes, in the past week</td>
<td>□ Major depressive episode</td>
</tr>
<tr>
<td>□ Yes, in the past month</td>
<td>□ Mixed affective episode</td>
</tr>
<tr>
<td>□ Yes, in the past year</td>
<td>□ Command hallucinations to hurt self</td>
</tr>
<tr>
<td>□ Yes, in the past month</td>
<td>□ High impulsivity behavior</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suicidal Ideation (Most Severe in Past Week)</th>
<th>Substantive abuse or dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Yes, in the past week</td>
<td>Agitation or severe anxiety</td>
</tr>
<tr>
<td>□ Yes, in the past month</td>
<td>Perceived burden on family or others</td>
</tr>
<tr>
<td>□ Yes, in the past year</td>
<td>Chronic physical pain or other acute medical problem (AIDS, COPD, cancer, etc.)</td>
</tr>
<tr>
<td>□ Yes, in the past month</td>
<td>Hospitalization</td>
</tr>
<tr>
<td>□ Yes, in the past week</td>
<td>Aggressive behavior towards others</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activating Events (Recent)</th>
<th>Method for suicide available (gun, pills, etc.)</th>
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</thead>
<tbody>
<tr>
<td>□ Recent loss or other significant negative event</td>
<td>Refuses or feels unable to agree to safety plan</td>
</tr>
<tr>
<td></td>
<td>Describe:</td>
</tr>
<tr>
<td></td>
<td>□ Yes, in the past week</td>
</tr>
<tr>
<td></td>
<td>□ Yes, in the past month</td>
</tr>
<tr>
<td></td>
<td>□ Yes, in the past year</td>
</tr>
</tbody>
</table>

**Treatment History**

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<thead>
<tr>
<th>Previous psychiatric diagnoses and treatments</th>
<th>Supportive social network or family</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Yes, in the past week</td>
<td>Hopeless or dissatisfied with treatment</td>
</tr>
<tr>
<td>□ Yes, in the past month</td>
<td>Fear of death or dying due to pain and suffering</td>
</tr>
<tr>
<td>□ Yes, in the past year</td>
<td>Noncompliant with treatment</td>
</tr>
<tr>
<td>□ Yes, in the past month</td>
<td>Belief that suicide is immortal, high spirituality</td>
</tr>
<tr>
<td>□ Yes, in the past week</td>
<td>Not receiving treatment</td>
</tr>
<tr>
<td>□ Yes, in the past year</td>
<td>Engaged in work or school</td>
</tr>
</tbody>
</table>

**Other Risk Factors:**

<table>
<thead>
<tr>
<th>Other Protective Factors:</th>
</tr>
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Describe any suicidal, self-injurious or aggressive behavior (include dates).
Assessment of Suicide Risk

The patient and family need to partner with the provider to monitor safety in the depressed adolescent. When doing a risk assessment on a suicidal teen, there are several risk factors which should be taken into consideration. A mnemonic that can help with this assessment is "SAD PERSONS." Risk factors are ranked with stars, ranging from 0-2, with 2 stars representing increased risk.

Adapted SAD PERSONS Scale for Children and Youth

Sex (males are considered at increased risk)
Age (adolescents aged 15 and older are at greater risk than younger children)
Depression or affective disorder
Previous suicide attempt
Ethanol or drug abuse
Rational thinking loss (from physical or psychological disorder)
Social supports lacking
Organized plan
Negligent parenting, significant family stressors, or suicidal modeling by parents or siblings
School problems (aggressive behaviors or experiencing humiliation)

References:

Reprinted with permission from the Gilbellesee for Adolescent Depression-Primary Care (ADAP-C) Toolkit
(www.adap-c.org) sponsored by the REACH Institute
(Pediatric Academic Societies)

doi:10.1542/peds.2010-0788T
Children’s Service Center Suicide Risk Assessment “Sad Persons” ITEM YES NO

Sex (male) Age (15 and older) Depression or affective disorder Previous suicide attempt or psychiatric care Ethanol or drug abuse Rational thinking loss (psychosis) Social support lacking Organized plan or attempt Negligent parenting, significant stressors, suicidal modeling by parents School problems (aggressive behaviors or experiencing humiliation)

1-2 Low Risk Not serious threat, keep watch
3-6 Moderate Risk +/- supervision at home/psychiatric consult
7-10 High Risk Supervision/psychiatric consult/hospitalization
Signs of clinical depression

- Depressed mood most of the time
- Loss of interest or pleasure in usual activities
- Weight loss or gain
- Can't sleep or sleeps too much
- Restless or slowed-down
- Fatigue, loss of energy
- Feels worthless or guilty
- Low self-esteem, disappointed with self
- Feels hopeless about future
- Can't concentrate, indecisive
- Recurring thoughts of death
- Irritable, upset by little things
Signs of Mania

- Depressed mood most of the time
- Elated, expansive, or irritable mood
- Inflated self-esteem, grandiosity
- Decreased need for sleep
- More talkative than usual, pressured speech
- Racing thoughts
- Abrupt topic changes when talking
- Distractible
- Excessive participation in multiple activities
- Agitated or restless
- Hypersexual, spends foolishly, uninhibited remarks
Black Box Warning

In June 2003 MHRA, FDA in UK, warned about possible increased risk of suicidal ideation in children and adolescent taking SSRI based on one study and recommendation for further studies.

2004 Black Box Warning was issued, but also established a classification project to improve the study of “range of suicidal behaviors” and other behaviors “not directly related to suicidal behavior.”
Black Box Warning

Warning was established after 3 RCT: 1 of three studies showed a difference between drug and placebo in “possibly suicide related behavior” but another study showed increased behaviors in placebo. Not one of the 4000 children or adolescents participating in theses studies actually committed suicide.
Multiple Hypothesizes

Feeling better?

Precipitated manic episodes?

SSRI Paradoxical response- Activation agitation disinhibition leading to more cutting behavior and parasuicidal behavior
More studies support the decrease in suicide rates. Suicide rates have been declining since 1987, through the mid-1990s for children and adolescents (only recently started to increase again in 2001),

Landmark study, Treatment of Adolescent Depression Study (TADS) 2004 – Fluoxetine + CBT most effective and Fluoxetine alone still more effective than placebo.

TADS also showed that there may be an increase in “harm-related events” but not suicide.

TADS and other studies indicate that SSRI does effectively treat depression, which is prominent feature in completed suicides
Increase in Suicide 2004-2009 by 18% in U.S.

“…..influence of internet social networks increases in suicide among young U.S. troops and higher rates of untreated depression in the wake of recent “black box” warnings on antidepressants—a possible unintended consequence of the medication warnings, required by the FDA in 2004.”

Other Para-Suicidal Behaviors-
Self Injury- NSSI

Cutting or self mutilation – a complex behavior and symptom results from variety of factors
Release tension
Boredom
Release of endorphins
Rebel or get reaction from others (unconscious dynamic vs conscious)
Bonding activity
A way to show hopelessness feelings of worthlessness or emotional numbing
Other Para-Suicidal Behaviors- Self Injury- NSSI

Prevalence- as much as 10% of children engage in self injurious behaviors up to 35% of patients with eating disorders. Meta analysis indicates 17% Adolescents, 10% college students and a 5% life time prevalence

NSSI in western counties highest in white adolescent males

Research indicates half of patients with NSSI may not meet criteria for a major psychiatric disorder.

Increased “contagion’ factor

However, considered to have an increase risk to attempted but not completed suicide
Other Dangerous Behaviors

Autoerotic asphyxiation

“Challenges”- Online challenges that target suggestible children and adolescents, particularly targeted to low intelligence, low self esteem, and impulsive children
What To Do?

Manage one’s own anxiety
Evaluate for suicidal vs NSSI
Safety stratification
Refer to professional as indicated
What Do You Think Physicians/Professionals Do?
Prevention

Crisis hotlines 1 800 273- TALK

Restricting access to firearms

Suicide awareness programs minimize the role psychiatric illness and have not been shown to be effective in reducing suicidal behavior or increasing self help.

Suicide awareness programs may disturb high risk students.

AACAP recommend focus on clinical characteristics of depression or other mental illness.
References

AACAP References for suicide
https://www.aacap.org/aacap/Families_and_Youth/Resource_Centers/Suicide_Resource_Center/Home.aspx


