



## Youth Mental Health: Science and Research Supporting Mental Health Screening

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## PRESENTER'S DISCLOSURE

David Shaffer, F.R.C.P., F.R.C.Psych.

Source	Consultant	Advisory Board	Stock Equity >\$10,000	Speaker's Bureau	Research Contract
Ñ	Ñ	Ñ	Ñ	Ñ	Ñ

1. Reimbursed for professional advice given to counsel for Hoffman La Roche
2. Provided informal advice to GSK; no direct or indirect reimbursement requested or received
3. Submitted letter to the Committee on Safety of Medicines at request of Pfizer; no direct or indirect reimbursement requested or received
4. Provided informal advice to counsel for Wyeth Pharmaceuticals; returned advance when relationship of counsel to Wyeth was revealed

CT13

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## Psychiatric Disorder In Adolescent Suicide

— PSYCHOLOGICAL-AUTOPSY STUDIES —

LOCATION	N	YEARS	%
Israel	43	mid-1980s	90%
*New York	120	1984–1986	90%
Finland	53	1987–1988	94%
*Pittsburgh	140	1984–1994	82%

Apter 1993, Shaffer 1996, Marttunen 1991, Brent 1999; \*case-control studies D14

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## Most Common Diagnoses In Teen Suicides

	MALE (N=213)	FEMALE (N=46)
Depression	50%	69%
Antisocial	43%	24%
Substance Abuse	38%	17%
18- to 19-year olds*	60–67%	13%
Anxiety	19%	48%

66% of 17- to 19-Year-Old Male Suicides Have Substance/Alcohol Abuse

Brent et al. 1999, Shaffer et al. 1996; \*N=120 D17

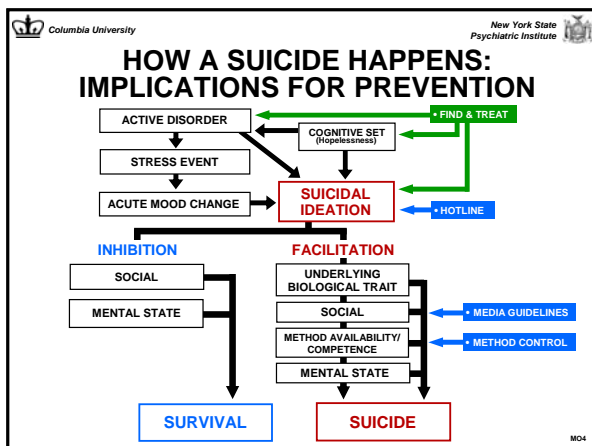
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## Frequency of Suicidal Ideation and Behavior

— U.S. HIGH-SCHOOL STUDENTS —  
(N=15,240, 2003, 12-Month Incidence)

	RATE	TEENS 15–19*
Ideation	16.9% (± 0.7)	(3.4 million)
Attempt	8.5% (± 1.1)	(1.7 million)
Attempt involving medical attention	2.9% (± 0.7)	(590,000)
SUICIDE (age 15–19)**	.007%	(1,513)

Grunbaum et al. 2004 (YRBS); \*2002 population; \*\*Anderson & Smith 2005 (2002 data) E16



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## Rationale for Screening

1. Nearly all suicides have a psychiatric disorder at death
2. Very few suicides are receiving treatment at time of death
3. Suicidal behavior is usually kept secret by teens
4. Non suicidal screen positives have other disabling conditions
5. Educational programs are ineffective and potentially risky
6. The candidates identified by screening are treatable by psychotherapy or medication

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## Mental Health Treatment of Teen Suicides Before Death

STUDY	LIFETIME	RECENT
<b>Finnish National Sample</b> <i>(Marttunen et al. 1992)</i>	<b>36%</b>	<b>23%</b> <small>(&lt; 1 year before death)</small>
<b>Pittsburgh</b> <i>(Brent et al. 1993)</i>	<b>58%</b>	<b>15%</b> <small>(&lt; 1 month before death)</small>
<b>New York City</b> <i>(Shaffer et al. 1996)</i>	<b>46%</b>	<b>21%</b> <small>(&lt; 3 months before death)</small>
<b>Norway</b> <i>(Groholt et al. 1997)</i>	<b>24%</b>	<b>7%</b> <small>(&lt; 1 month before death)</small>

Rx11

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## Most Attempts Are Kept Secret

- POPULATION STUDIES -

- **30% - 60%** do not reveal past attempt to anyone
- **90%** of attempts unknown to parents

Harkavy & Friedman 1987, Shaffer et al. (in preparation), Velez & Cohen 1988, Young & Zimmerman 1998

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## Consequences of Teen Depression

- School**
  - Deteriorating schoolwork
  - School absenteeism
  - Held back or fail to get to college
- Home**
  - Strained relations with parents and siblings
- Peers**
  - Withdrawal leading to reduced support system
- Self**
  - Distress
  - Increased chance of smoking, excess alcohol, and drugs
  - Potential for suicide (1–3% over 20 years)

see Birmaher et al. 1996 DE12

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## Two Principal Approaches To Case-finding

1. Educate teens and teach about warning signs
2. Screening

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## Educational Approach to Case-finding

— R A T I O N A L E —

- Teens tell each other about their problems, including suicidal thoughts
- Therefore, train peers to detect and report warning signs and suicidal teens to get help

NJ1

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## CONTAGION

- Evidence of contagion/imitation requires caution about what is said or shown to a teen audience that may include vulnerable individuals.
- One of the reasons why we studied Suicide Awareness Training and concluded that Screening was preferable

C1

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## Problems with Educational Approach

- Only 13% of attempters told a friend
- Many suicidal teens do not show warning signs
- Most warning signs are not specific for suicidality
- Interventions by other students can be stressful to the other student
- Evidence that programs upset students who have made a previous attempt

Shaffer & Craft 1999 AP1

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## Case-Finding by Direct Screening

— THE COLUMBIA TEENSCREEN® MODEL —

SCREEN FOR

- Mood disorder
- Suicidal ideation
- Suicide attempts
- Substance and alcohol abuse

↓

TRIAGE EVALUATION IMMEDIATELY AFTER

↓

CASE-MANAGE

↓

TREAT

P23

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## SCREENING: BENEFITS AND CONCERNS

### Benefits

1. No discussion of suicide—should reduce contagion risk
2. Use of self-completion forms/computerization promotes disclosure
3. 85% of screen positives have conditions that benefit from clinical contact
4. Can be used after another student
5. Broad principles easily adapted to local conditions

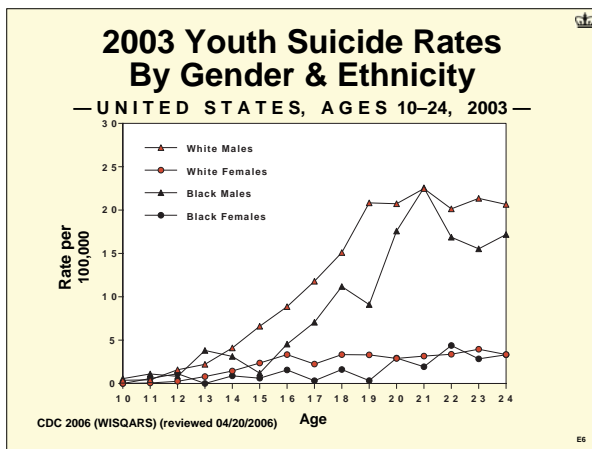
S43

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## SCREENING: BENEFITS AND CONCERNS

### Concerns

1. Unknown impact on morbidity/mortality
2. Personalized approach can be expensive
3. Treatment can be hard to find



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## THE COLUMBIA SUICIDE SCREEN

— SUICIDE ATTEMPT —

Have you ever **tried to kill yourself?**

No  Yes → a) Have you tried to do this in the last 3 months?  No  Yes

No  Yes → b) Are you so concerned about this that you think you should talk to a professional who can help?  No  Yes

No  Yes → c) Have you talked to a professional who can help with this during the past 3 months?  No  Yes

No  Yes → d) Do you have another appointment to see this (or another) professional again?  No  Yes

Go to next question

Shaffer et al. 1996

S7

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## Typical Participation Rates

•Eligible for screen	2,995 (100%)
•Parent refused	259 (9%)
•Student refused	307 (10%)
•Absent on screen day	425 (14%)
•SCREENED	2,004 (67%)

Shaffer et al. 1996 A.511

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- ## Clinical Interview After Screening
- For all screen positives immediately after screen
  - Decide if further evaluation needed
- A.534

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- ## The Case Manager
- Knows resources in the area
  - Informs parents and new providers of results; gets permission and makes appointments
  - Supports families until connection is made
  - Encourages attendance at early appointments
- 59

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## Referral for Treatment In A Screened Population

Judged in need and not obtaining	122 (100%)
Refused referral	40 (33%)
Parent	23
Teen	17
Failed first visit	27 (22%)
First visit only	24 (20%)
> One visit	31 (25%)

TeenScreen® Study S14

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- ## Direct Screening In Mid-Adolescence Identifies
- Current**
- At risk for suicide
  - In distress from depression
- Future**
- Most students who will have a persistent depression and who will make a later suicide attempt in their early twenties
- 595

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- ## The Argument Against Screening
- | Argument                                     | Response  |
|--|---|
| 1. 1. Unrequested intrusion into family life | 1. 1. Only screen with full parental consent  |
| 2. Labeling                                  | 2. Sort out positive and negative traits place immediately <ul style="list-style-type: none"> <li>• Only positive who are suffering are referred</li> </ul> |
| 3. Promotes medical interests                | 3. No ties to any pharmaceutical manufacturers. Identification and treatment components are kept separate   |
| 4. Adds to pressure on scarce resources      | 4. Develop more effective triage and graded treatment approaches  |

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## SSRIs And Youth Depression: The Issues

- What non-SSRI treatments are available?
- Do SSRI's work?
- Do SSRI's induce suicidal states?

Rx5177

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## Psychotherapy for Teen Depression

- Non-specific effects of attention and history-taking on reducing anxiety, psychological distancing, and perspective-taking

**35%–60% improvement**  
**? enduring**

DE42

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## Interpersonal Therapy (IPT) For Teen Depression

- Acceptance
- Psychoeducation
- Review relationships and identify problems
- Problem-solving training

*Long-term benefits not known*

DE44

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## Psychological Treatment for Teen Depression

### Cognitive Behavior Therapy

- Correct bias of thinking (cognitive restructuring)
- Encourage opportunities for reinforcement (activation)
- Reduce self-reinforcing patterns of thought, e.g., rumination and avoidance

*Difficult in children*  
*Good short-term response*  
*Might be accelerated by medication*

DE43

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## Fluoxetine And CBT In Teen Depression (TADS)

(N=439)

Adjusted Mean (SE) CDRS-R Scores by Treatment Week

Treatment Week	Placebo	Fluoxetine	CBT	Combined
Baseline	62	60	58	60
Week 6	46	40	42	38
Week 12	42	36	40	34

TADS Team 2004 (JAMA, 292, 807–820)

Rx574

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## Do SSRI's Lead To Suicide?

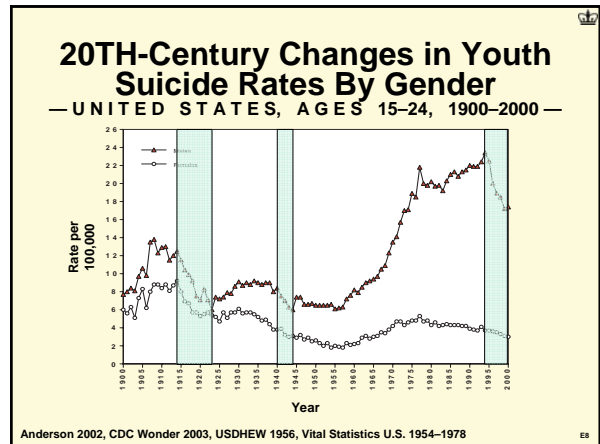
**In 23 studies no suicides reported but teens on antidepressants were more likely to tell people about suicidal thoughts or behaviors than teens on placebo.**

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## Black Box Warning

- Antidepressants *increased the risk of suicidality* in short-term studies in children and adolescents with MDD, etc.
- Anyone considering their use in a child/adolescent must *balance risk with clinical need*
- Patients started on therapy should be *observed closely* for clinical worsening, suicidality, or unusual changes in behavior
- *Caregivers* should be advised of need for *close observation and communication* with the prescriber

FDA Labeling Template, revised 01/26/2005, posted 02/03/2005 Rx5141



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## SSRIs Rare in Teen Suicide Autopsies

- In 573 autopsies of teen suicides, SSRIs found in only 10
- In 50 cases (Utah), SSRIs prescribed in 12; none present at autopsy

Gray 2002, Gray et al. 2003, Isacsson et al. 2005, Leon 2004 DE43

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## Possible Explanations

1. True effect
2. Antidepressants make you talk and reveal thoughts and attempts
3. A proxy for treatment working

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## 1937: *A Textbook of Psychiatry*

— NOYES & HAYDON —


“ . . . the most dangerous period of the depressed patient’s illness is during convalescence. . . . Previously his psychomotor inhibition may have prevented suicidal attempts but it no longer does so.”

DE33

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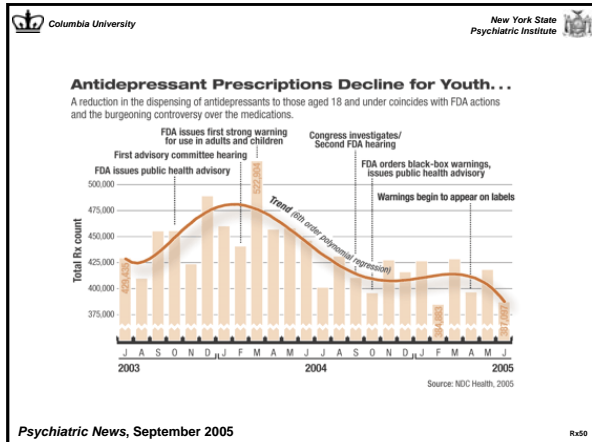
## 1812: *Observations and Inquiries Upon the Diseases of the Mind*

— BENJAMIN RUSH —



“ [Depressed patients] should be narrowly watched during their convalescence. . . . Three instances of suicide have occurred in patients soon after they left the Pennsylvania Hospital, and while they were receiving the congratulations of their friends upon their recovery.”

see Jamison 1999 DE34

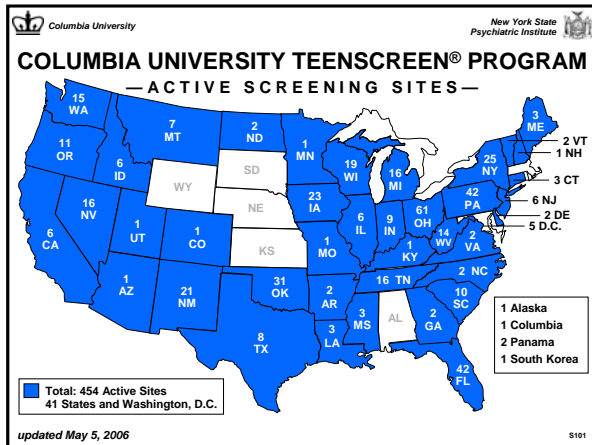


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— HOW TO LEARN MORE —

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