

# School-Based CBT for Depressed Children and Adolescents

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## Educational Objectives

You will be familiar with:

- Diagnosis and assessment of major depression and suicide among youth
- Factors contributing to vulnerability for depression among youth
- The Socio-Cognitive Model of depression
- Cognitive-behavioral case formulation and assessment
- Modular CBT techniques and strategies



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## Disclosures

- Nothing to disclose



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## Contributors

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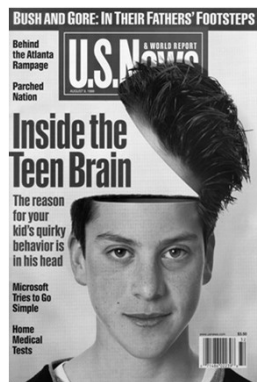
## Child & Adolescent Depression: An Overview



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### Epidemiology (1)

• Depression	2-7%
• Dysthymia	5-10%
• Separation Anxiety Disorder	2-5%
• Generalized Anxiety Disorder	3-4%
• Simple Phobia	2-3%
• ADHD	6-10%
• Oppositional Disorder	6-10%
• Conduct Disorder	3-5%



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### Epidemiology (2)

- Prepubertal: males = females
- Adolescence: females rise, males stable
- Dysthymia > Major Depression
- Moderate stability
- High recurrence rates



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## Lifetime Prevalence Major Depression

	Males	Females
• Adolescents	12%	24%
• Adults	14%	23%

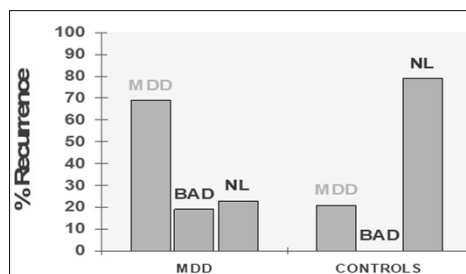
Kessler et al. (2005)  
Lewinsohn et al. (1993)

➤ How can we understand the gender difference in rate, recurrence?



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## Seven Year Follow Up of MDE



Rao et al (1995), JAACAP, 34:566-578



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## Substance Abuse



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Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Congenital Anomalies 4,815	Unintentional Injury 1,261	Unintentional Injury 787	Unintentional Injury 847	Unintentional Injury 11,895	Unintentional Injury 25,575	Malignant Neoplasms 41,291	Malignant Neoplasms 116,304	Heart Disease 807,118	Heart Disease 426,290	
2	Stroke 3,927	Congenital Anomalies 433	Malignant Neoplasms 449	Suicide 436	Suicide 5,723	Suicide 7,386	Heart Disease 34,057	Heart Disease 78,610	Malignant Neoplasms 425,927	Malignant Neoplasms 298,028	
3	IDS 1,500	Malignant Neoplasms 377	Congenital Anomalies 203	Malignant Neoplasms 451	Suicide 5,172	Suicide 5,376	Heart Disease 10,477	Unintentional Injury 23,377	Unintentional Injury 21,860	Chronic Low Respiratory Disease 151,402	Unintentional Injury 183,374
4	Maternal Pregnancy Comp. 1,462	Suicide 329	Suicide 120	Suicide 147	Malignant Neoplasms 1,431	Malignant Neoplasms 3,791	Suicide 7,020	Suicide 8,437	Chronic Low Respiratory Disease 17,810	Chronic Low Respiratory Disease 121,030	Chronic Low Respiratory Disease 254,596
5	Unintentional Injury 1,219	Heart Disease 118	Heart Disease 77	Congenital Anomalies 146	Heart Disease 949	Heart Disease 3,445	Suicide 2,309	Liver Disease 8,364	Diabetes Mellitus 14,251	Alzheimer's Disease 114,863	Diabetes Mellitus 142,142
6	Pneumonia/Cont. Respiratory Disease 841	Influenza & Pneumonia 103	Chronic Low Respiratory Disease 88	Heart Disease 111	Congenital Anomalies 388	Liver Disease 925	Liver Disease 2,851	Diabetes Mellitus 13,448	Diabetes Mellitus 14,402	Alzheimer's Disease 116,303	
7	Bacterial Inj. 683	Sepsis 70	Influenza & Pneumonia 48	Chronic Low Respiratory Disease 75	Diabetes Mellitus 214	Diabetes Mellitus 2,049	Diabetes Mellitus 5,353	Chronic Low Respiratory Disease 12,310	Unintentional Injury 51,141	Diabetes Mellitus 80,608	
8	Respiratory Disease 488	Perinatal Period 49	Sepsis 40	Chronic Low Respiratory Disease 50	Chronic Low Respiratory Disease 206	Chronic Low Respiratory Disease 575	Chronic Low Respiratory Disease 1,851	Chronic Low Respiratory Disease 4,307	Influenza & Pneumonia 42,479	Influenza & Pneumonia 51,517	
9	Circulatory System Disease 460	Chronic Low Respiratory Disease 55	Chronic Low Respiratory Disease 39	Influenza & Pneumonia 39	Influenza & Pneumonia 189	HW 546	HW 971	Sepsis 2,472	Sepsis 5,940	Nephritis 41,095	Nephritis 50,040
10	Neurological Disease 398	Chronic Low Respiratory Disease 51	Sepsis 31	Sepsis 31	Complicated Pregnancy 148	Complicated Pregnancy 148	Sepsis 412	Suicide 2,152	Nephritis 5,650	Sepsis 30,402	Suicide 44,965



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## Causes of Death Among 15 to 19 Year-Olds (2003)

CAUSE	# OF DEATHS
Accidents	6646 #1
Homicide	1899 #2
Suicide	1611 #3
Cancer	732
Heart Disease	347
Congenital Anomalies	255
Chronic Lower Respiratory Disease	74
Stroke	68
Influenza and Pneumonia	66
Blood Poisoning	57

Anderson & Smith 2003



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## Causes of Death Among 15 to 24 Year-Olds (2016)

CAUSE	# OF DEATHS
Accidents	13859 #1
Homicide	5172 #3
Suicide	5723 #2
Cancer	1431
Heart Disease	949
Congenital Anomalies	388
Diabetes	211
Respiratory	206
Influenza and Pneumonia	189
Complicated Pregnancy	184

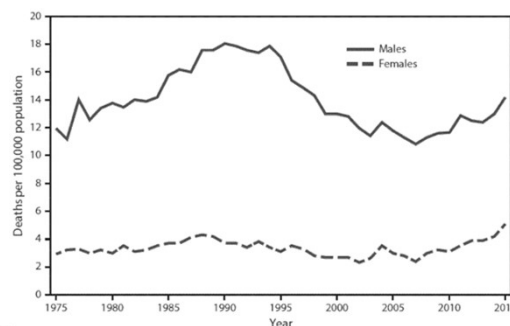
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CDC 2018

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## Adolescent Suicide Rates (CDC, 2017)



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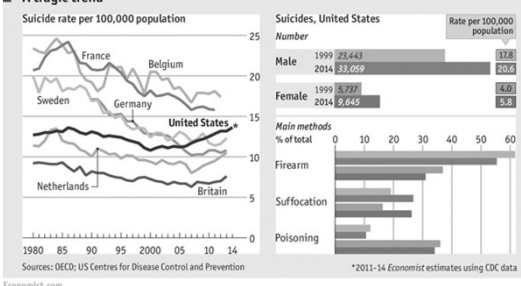
## Adolescent Suicide Rates

- Suicide rates decreased between 1990 and 2003 as antidepressant prescriptions increased
- Suicide rates *increased* 18% from 2003-2004 due to decreased antidepressant use
- Rate doubled for 15-19 year-old females between 2007 and 2015
- Rate increased by 30% for 15-19 year-old males between 2007 and 2015



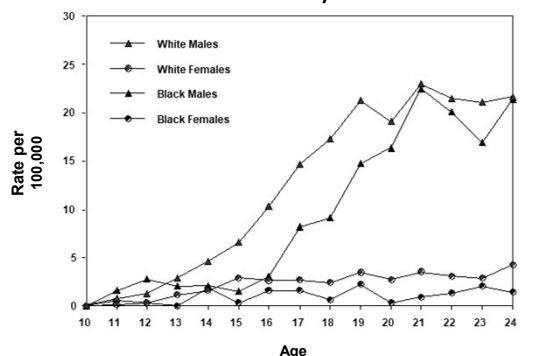
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### A tragic trend



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## Youth Suicide Rates by Gender



CDC 2003 (WISQARS)

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## Why the Increase?

- Black Box warnings
- Economic pressure on families
- Insurance, access to treatment
- Shift from cocaine to opioids, pain killers
- Social media



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### Major Depression An Important Social Problem

- Common: Point prevalence of 2-7%
- Leading cause of disability worldwide
- 20m Americans affected (compared to 13.5m with coronary heart disease)
- Mortality rate elevated 2.6x
- Depression is a social policy priority



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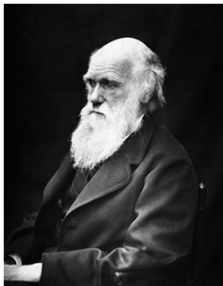
### Diagnostic Criteria for Depression

1. Depressed or irritable mood
2. Anhedonia, loss of interest or pleasure
3. Weight or appetite change
4. Sleep difficulties
5. Psychomotor agitation or retardation
6. Fatigue
7. Worthlessness or guilt
8. Concentration or memory problems
9. Thoughts of death or suicide



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### Evolution and Depression: Is Depression Adaptive?



"Pain or suffering of any kind, if long continued, causes depression and lessens the power of action; yet it is well adapted to make a creature guard itself against any great or sudden evil."

Charles Darwin (1887)



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### Is Depression Adaptive?

- Adaptive warning mechanism
- Functionally similar to pain
- Inhibits individual from pursuing unattainable goals
- Decreased motivation; energy saved until new goal identified

Neese, R. *Arch. Gen Psychiat.* (2000)



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## Goal Adjustment Capacity

- 97 girls; 15-19 years old
  - Longitudinal assessment; 19 months
  - Assess disengagement from personally salient unattainable goals and re-engagement with new goals
- Mildly depressed youth disengage more easily from unattainable goals
- Those who disengage easily are *less* likely to experience more severe depression later; lower c-reactive protein (associated with inflammation)

Wrosch, C. & Miller, G. (2009) JPSP



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## The Three Rivers

- Developmental experience  
"It's the environment, how you're raised"
- Biological processes  
"It's all in your brain"
- Cognition  
"It's all how you look at it"



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## Vulnerability for Depression

1. Biological (Genetic) Factors
2. Negative Life Events
3. Early Experience & Insecure Attachment
4. Affect Regulation
5. Social Behavior; Social Support
6. Cognitive Biases / Deficits



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## Biological Systems (Negative Valence – Loss)

- Genes: MAOA, COMT, DAT1, 5HTTR, 5HTRs
- Brain: Amygdala, DLPFC, VMPFC, Insula, Cingulate, Hippocampus, Striatum
- Physiology: ANS, HPA



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## Biological Systems (Positive Valence – Reward)

- Genes: DAT, DRD2, TREK1
- Brain: Anterior Insula, Lateral Hypothalamus, Medial OFC, Nucleus Accumbens, Ventromedial PFC
- Physiology: Endocannabinoids, Glutamate, FosB, Orexin, Dopamine



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### Cognitive Vulnerability-I

1. Beck Tacit Beliefs or Schema, Cognitive Distortions, Sociotropy, Autonomy, Automatic Thoughts
2. Rehm Self-Control Deficits, Self Reinforcement
3. D'Zurilla Social Problem-Solving Deficits
4. Garber Affect Regulation



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### Cognitive Vulnerability-II

5. Seligman Learned Helplessness – Perceptions of Contingency
6. Abramson Negative Attributional Style
7. Lewinsohn Loss of Social Reinforcement
8. Alloy Depressive Realism; Perceptions of Control and Worth



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### Cognitive Vulnerability-III

9. Freeman Decreased mastery and pleasure
9. Joiner Excessive Reassurance Seeking
10. Nolen-Hoeksema Ruminative Style
11. Ingram Self-focused Attention
12. Higgins Strauman Self-Concept Discrepancy



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### Cognitive Vulnerability-IV (provisional)

1. Gotlib Joorman Perceptual disengagement from distressing stimuli
2. Reinecke Breiter Sensitivity to reward, loss



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### Cognitive Vulnerability – Unitary Construct?

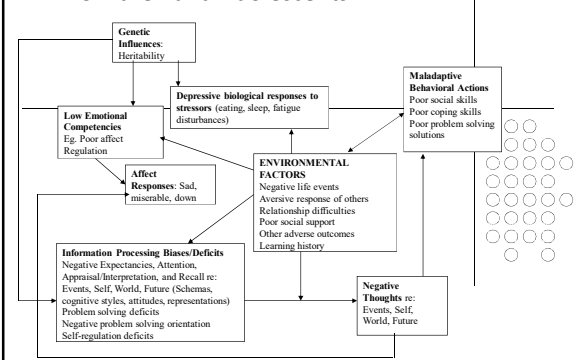
Ginsburg et al. JCCAP (2010)

- Factor structure of self-report scales assessing depression-relevant cognitions (BHS, CNCEQ, CTI-C, DAS, SPSI-R)
- 390 adolescents with major depression
- Four factor solution:
  1. Cognitive Distortions and Maladaptive Beliefs (DAS, CNCEQ)
  2. Cognitive Avoidance (SPSI-R; ICS, AS, NPO)
  3. Positive Outlook (CTI-C, BHS)
  4. Solution-Focused Thinking (SPSI-R; PPO, RPS)
- Maladaptive cognitions were positively related to severity of depression and predicted treatment response.



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### Socio-Cognitive Model of Depression in Children and Adolescents



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### Assessment

- Children's Depression Rating Scale (CDRS-R)
- Reynolds Adolescent Depression Scale (RADS-2)
- Children's Depression Inventory (CDI-2)
- Reynolds Suicide Ideation Questionnaire (RSIQ)
- Columbia Suicide Severity Rating Scale (C-SSRS)



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### Measures of Cognitive Mediators

- Automatic Thoughts Questionnaire (ATQ)
- Young-Brown Schema Questionnaire (YBSQ-R)
- Dysfunctional Attitudes Scale (DAS)
- Social Problem-Solving Inventory (SPSI-R)
- Attributional Style Questionnaire (ASQ)
- Inventory of Parent & Peer Attachment (IPPA)
- Cognitive Bias Questionnaire (CBQ, CNCEQ)



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### Core Cognitive Vulnerabilities

#### Depression

1. Negative Attributional Style (Alloy et al., 2008)
2. Dysfunctional Attitudes (Beck, 1987)
3. Ruminative Style (Nolen-Hoeksema et al., 2008)

#### Anxiety

1. Anxiety Sensitivity (McNally, 1994)
2. Intolerance of Uncertainty (Dugas et al., 2004)
3. Fear of Negative Evaluation (Watson & Friend, 1999)



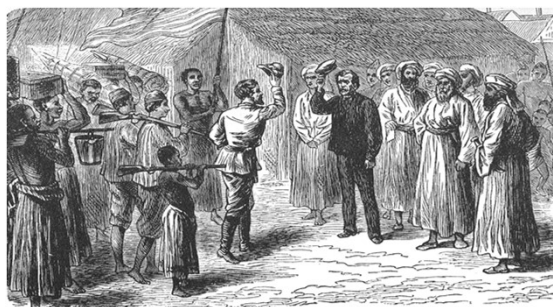
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### Therapeutic Relationship in CBT

1. Accurate empathy
2. Warmth
3. Genuineness
4. Rapport, "harmonious accord", acceptance
5. Collaboration
6. Empiricist orientation
7. Patient and parent feel "understood"



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### Adult "Frames" in Child Development

- Nurturant Frame
- Protective Frame
- Instrumental Frame
- Feedback Frame
- Modeling Frame
- Discourse-Conversation Frame
- Memory Frame



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### Modular CBT

(Reinecke, 2002; Curry & Reinecke, 2003)

- Empirically-supported techniques
- Formulation based
- Flexible, individually-tailored
- Prescriptive interventions
- Targets identified vulnerability and maintaining factors
- Addresses social environment in which beliefs and coping skills are acquired and function



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### CBT Individual Modules

1. Mood Monitoring
2. Goal-Setting
3. Behavioral Activation/Pleasant Activities
4. Problem-Solving
5. Cognitive Restructuring
6. Relaxation
7. Affect Regulation
8. Social Interaction
9. Assertion
10. Communication



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### CBT Family Modules

1. Rationale and Goal-Setting
2. Psychoeducation about CBT
3. High Expectations and Low Reinforcement
4. Family Problem-Solving
5. Family Communication (EE)
6. Attachment and Re-commitment
7. Contingency Management



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### Core versus Non-Core Modules

- Core modules are hypothesized to be relevant for most depressed adolescents, can be placed first
- Core = "Required" across cases and sites, to reduce site x treatment interactions
- Transdiagnostic interventions (Barlow)?
- Address strength or deficit?



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### CBT Formulation Variables

1. Automatic thoughts, Images
2. Schema, Tacit beliefs, Assumptions (If \_\_\_\_; Then \_\_\_\_)
3. Attributional Style, Hopelessness, Helplessness
4. Problem Solving, Problem-Solving Motivation, Self-Efficacy
5. Sociotropy-Autonomy
6. Ruminative Style, Disengagement
7. Distortions, Perceptual & Memory Bias, Reward-Loss Sensitivity
8. Attachment Style (Secure, Insecure, Disorganized)
9. Affect Regulation, "Mood Repair"
10. Self-Discrepancy
11. Social Skills, Social Support
12. Major & Minor Life Events
13. Coping (positive & maladaptive)
14. Family Environment



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### CBT Modules in Practice



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### Psychoeducation / Socialization

#### ➤ Nature of depression:

- Basic human emotion; mood fluctuations are normal
- Cognitive, affective, physiological, and behavioral components

#### ➤ Etiological mechanisms:

- Biological vulnerabilities
- Learning history (negative events, stress)
- Cognitive biases (negative filter)



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### Rationale

- Presentation of the model, basic concepts
- Process and procedures of CBT
- What we will be doing and why
- Assess understanding and acceptance



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### Behavioral Activation

- Increasing pleasant, non-harmful activities
- Rekindling hedonic capacity
- Challenging the belief that activities cannot be enjoyable
- Pleasant Activity Scheduling
  - Mastery, Pleasure, Social, Value



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### Increasing Pleasant Activities

- Generate list of activities the adolescent likes or would like to do
- Obtain a baseline
- Select 2-3 target activities to increase
- Rate mood daily
- Note connection between activities and mood

Lewinsohn Pleasant Activity Schedule. In: E. Beckham & W. Leber (Eds.) (1985). Handbook of depression. Homewood: Dorsey Press.



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### Sample PES Items (Lewinsohn)

- |   |   |
|---|---|
| 1. Being in the country   | 11. Being at the beach  |
| 2. Wearing expensive or formal clothes                            | 12. Doing art work (painting, sculpture, drawing, movie-making, etc.) |
| 3. Making contributions to religious, charitable, or other groups | 13. Rock climbing or mountaineering                                   |
| 4. Talking about sports   | 14. Reading the Scriptures or other sacred works                      |
| 5. Meeting someone new of the same sex                            | 15. Playing golf  |
| 6. Taking tests when well prepared                                | 16. Taking part in military activities                                |
| 7. Going to a rock concert  | 17. Re-arranging or redecorating my room or house                     |
| 8. Playing baseball or softball                                   | 18. Going naked   |
| 9. Planning trips or vacations                                    | 19. Going to lectures or hearing speak                                |
| 10. Buying things for myself                                      |   |



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### Cognitive Restructuring

#### ➤ Cognitive Triad:

- Self
- World
- Future

#### ➤ Dysfunctional Thought Record (DTR)

- Situation
- Automatic thought (AT)
- Mood rating (*both* positive and negative)
- Rational response (RR)



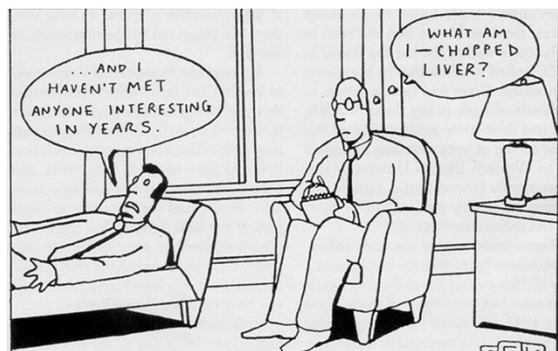
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### Cognitive Distortions (Beck & Ellis)

- |                              |                              |
|------------------------------|------------------------------|
| • All or None Thinking       | • Perfectionism              |
| • Catastrophizing            | • Should statements          |
| • Disqualifying the positive | • Probability overestimation |
| • Negative filter            | • Magnification              |
| • Fortune telling            | • Minification               |
| • Mind reading               | • Overgeneralization         |



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### Disputing Maladaptive Thoughts

- Socratic method
- Treat thoughts as hypotheses, not facts
- Generate alternative hypotheses
- Construct and conduct behavioral experiments
- Evaluate the evidence
- Revise the thought (Rational Response)



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## Adolescent Egocentrism (Elkind)

- Misapplication of Hypothetico-Deductive Reasoning
1. Personal Fable
  2. Imaginary Audience
  3. Illusion of Invulnerability



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## *The Who "Baba O'Riley" c 1972*

Sally, take my hand  
We'll travel south cross land  
Put out the fire  
And don't look past my shoulder.

The exodus is here  
The happy ones are near  
Let's get together  
Before we get much older.

Teenage wasteland  
It's only teenage wasteland.  
Teenage wasteland  
Oh, yeah  
It's only teenage wasteland  
They're all wasted!



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## *Pearl Jam "Nothingman" c 1992*

once divided...nothing left to subtract...  
some words when spoken...can't be taken back...  
walks on his own...with thoughts he can't help thinking...  
future's above...but in the past he's slow and sinking...  
caught a bolt 'a lightnin'...cursed the day he let it go...  
nothingman... nothingman  
isn't it something?  
nothingman...  
she once believed...in every story he had to tell...  
one day she stiffened...took the other side...  
empty stares...from each corner of a shared prison cell...  
one just escapes...one's left inside the well...  
and he who forgets...will be destined to remember...  
nothingman...nothingman  
isn't it something?  
nothingman...



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*Green Day "I Walk Alone" c.2002*

I walk a lonely road  
The only one that I have ever known  
Don't know where it goes  
But it's home to me and I walk alone

I walk this empty street  
On the Boulevard of broken dreams  
Where the city sleeps  
And I'm the only one and I walk alone

I walk alone I walk alone I walk alone

My shadow's the only one that walks beside me  
My shallow hearts the only thing that's beating  
Sometimes I wish someone out there would find me  
'Til then I walk alone I walk alone I walk alone



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*The Neighbourhood "Everybody's Watching Me" c.2013*

I told you I would tell you everything you want to know  
You want me to tell you now  
You pressure me to shout it  
Need to hear about it

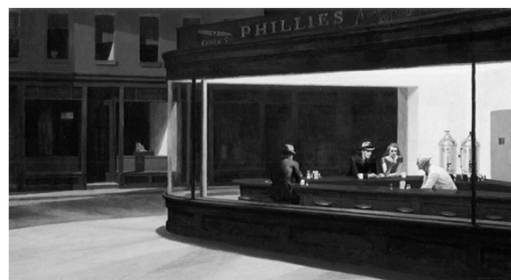
Think that I would count you out  
I let you find it on your own

Then I found myself alone  
Uh oh, where can I go?  
Everybody's watching me  
Uh oh, where can I go?



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*Edward Hopper "Nighthawks" c.1942*

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### Disputing Automatic Thoughts "Three Essential Questions"

1. What's the evidence? For and against.
2. Is there another, more adaptive, way of looking at this? "On the other hand"
3. So what?
  - Decatastrophize
  - What is the solution?



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### Franklin's Socratic Questioning

- Build the argument through gentle queries
- Drop "any abrupt contradiction" style
- Be a "humble enquirer" by asking innocent questions
- Draw the person into making concessions that gradually prove your point



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## The Disputatious Style



"Being disputatious [is] a very bad habit." [Confronting people produces] "disgusts and perhaps enmities." "Persons of good sense, I have since observed, seldom fall into it, except lawyers, university men, and men of all sorts that have been bred at Edinburgh."



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## Tacit Beliefs / Schemata

- Generalized, tacit beliefs
- Organize perception, memory, problem solving
- Learning history may shape an individual's core views of self, others, future
  1. I am unlovable, vulnerable, unworthy, flawed, lack efficacy
  2. World is unsafe, others are unreliable
  3. No hope for my future



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## Social Problem-Solving

(D'Zurilla, Nezu, Curry)

- R Relax
- I Identify the problem
- B Brainstorm possible solutions
- E Evaluate each one
- Y 'Yes' to one (or two)
- E Encourage yourself, reinforce



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## Dear Problem-Solver #1

Dear Problem Solver,

Last Saturday I was driving my father's car to the store. I was close to being late so I was going pretty fast. As I turned a corner the car slid over and I scraped a tree. I got the steering under control, but was pretty shook up. After I stopped I looked at the car. There is a big scratch on the passenger side. After work I brought the car home. The next day Dad went on a trip. He's coming home in 3 days, and doesn't know about the scratch. I'm afraid to tell him because he might ground me. I need to get to school and to work, and I invited my girlfriend to a club next weekend. She's been looking forward to it for weeks. What should I do?

Sincerely,  
Scared in Sandusky



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## Dear Problem-Solver #2

Dear Problem Solver,

My problem is my math teacher. She's a real pain. Last week she was on my case for not getting my work done. She said she didn't care that I had to work extra hours at my job. She said it was my responsibility. She just doesn't seem to like me. She says I have an "attitude." The truth is, I just don't like math and I never have. Why do we have to take algebra anyway? What a waste. Now I'm behind in the course and I can't follow what the teacher is saying and if I flunk I won't graduate. It's getting bad. What should I do?

Sincerely,  
Anxious in Akron



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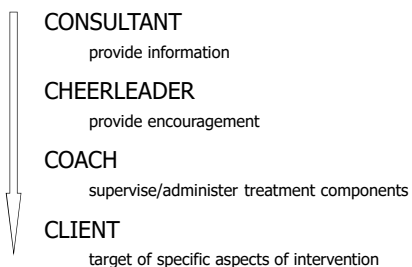
## Problem Solving Worksheet

1. Relax: The method I used to relax and calm my feelings was:
2. Identify: The problem I tried to solve was:
3. Brainstorm: The possible solutions I thought of were:
4. Evaluate: The consequences I considered were:
5. Yes to One: The solution I decided was:
6. Encourage: To encourage myself I:



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### Level of Parental Involvement



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### Family CBT Strategies

- Contingency contracting
- Communication training
- Means-End Problem Solving
- Negotiation skills
- Criticism-Demands : Affection-Support



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### Pragmatic Family Therapy



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### Relapse Prevention

1. Identify preferred modules
2. Identify high risk settings, events
3. Transfer of responsibility for treatment
4. Develop relapse prevention plan
5. Fading sessions
6. Booster sessions



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### Advanced CBT Strategies



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### Facilitating Secure Attachment

- Elicit positive relationship history, memory
- Discuss current relationship
- Develop "image" of desired relationship
- Discuss *behaviors* that would rekindle a more positive relationship
- Emphasize:
  1. Reliability (Predictable)
  2. Responsiveness
  3. Affection, Kindness (Non-punitive)



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### Affect Regulation "Keeping Feelings Under Control"

1. Emotions Thermometer or Volcano
2. Label endpoints
3. Identify physiological, behavioral, or psychological cues of escalation
4. Identify "critical point"
5. Plan specific actions, coping strategies
6. Involve parents
7. Rehearsal and reinforcement
8. Identify 1 or 2 high risk scenarios, prepare



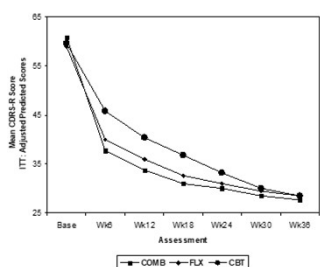
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### Affect Regulation "Mount Sad"



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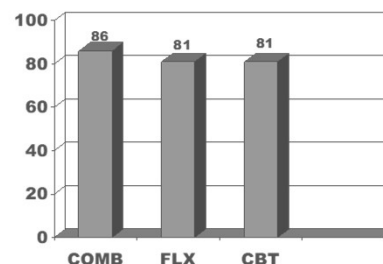
### Does Modular CBT Work? TADS Week 36 ITT Results



TADS

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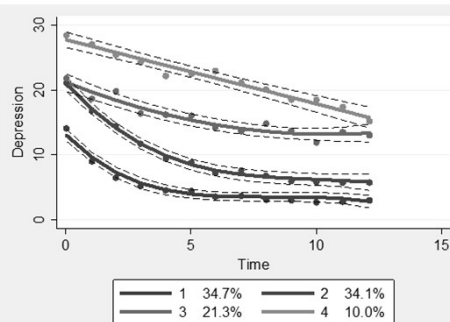
### Much/Very Much Improved: Week 36



TADS

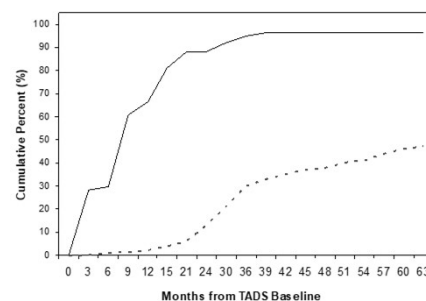
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### Trajectories of Treatment Response Growth Mixture Modeling / Latent Class Analysis Clarke (2015)



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### Recovery & Recurrence Rates



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## Teen Suicide



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## Mental Illness: A Risk Factor for Teen Suicide

- Key suicide risk factor for all age groups is an undiagnosed, untreated or ineffectively treated mental disorder
- 90% of people who die by suicide have a mental disorder
- In teens, suicide risk is most clearly linked to 7 mental disorders, often with overlapping symptoms:

Major Depressive Disorder	Conduct Disorder
Bipolar Disorder	Eating Disorders
Generalized Anxiety Disorder	Schizophrenia
Substance Use Disorders	



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## Common Diagnoses Among Suicidal Teens

	MALE (N=213)	FEMALE (N=46)
Depression	50%	69%
Antisocial	43%	24%
Substance Abuse	38%	17%
Anxiety	19%	48%

Approximately 2/3 of 16-19 year-old male suicide completers have a history of substance or alcohol abuse



Brent et al. 1999, Shaffer et al. 1996

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## Frequency of Suicidal Thoughts and Attempts

	RATE	N
Ideation	19.0%	3.8 million
Attempt	8.8%	1.8 million
Attempt received medical attention	2.6%	520,000
Completed Suicide	.008%	1,611

Anderson 2002; Grunbaum et al. 2002 (15-19 year old high school students)



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## Episodes of Suicidal Thoughts Per Year

1	45%
2	24%
3 or More	31%

Reifman & Windle 1995; "How often have you thought about killing yourself?"; past year, N=698; last 6 months, N=283)



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## Number of Teen Suicide Attempts per Year

1	53%
2 or 3	30%
4 or More	17%

- *Similar findings in patient studies*
- *1 attempt increases risk of another 15-fold*

Barter et al. 1968, Brent 1993, CDC 2002 (YRBS 2001 Codebook), Goldacre & Hawton 1985, Goldston et al. 1999, Hawton et al. 1982, Hulten 2001, Kotila 1992, Lewinsohn et al. 1994, McIntire et al. 1977, Spirito 1992, Spirito et al. 2003, Wichstrom 2000



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### CDC Risk Factors for Suicide - I

- Family history of suicide
- Family history of child maltreatment
- Previous suicide attempt(s)
- History of mental disorders, particularly clinical depression
- History of alcohol and substance abuse
- Feelings of hopelessness
- Impulsive or aggressive tendencies



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### CDC Risk Factors for Suicide - II

- Cultural and religious beliefs (e.g., belief that suicide is noble resolution)
- Local epidemics of suicide
- Isolation, feeling of being cut off from others
- Barriers to accessing mental health treatment
- Loss (relational, social, work, or financial)
- Physical illness
- Easy access to lethal methods
- Unwillingness to seek help, stigma



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### CDC Protective Factors for Suicide

- Effective clinical care for mental, physical, and substance abuse disorders
- Easy access to a variety of clinical interventions and support for help seeking
- Family and community support (connectedness)
- Support from ongoing medical and mental health care relationships
- Skills in problem solving, conflict resolution, and nonviolent ways of handling disputes
- Cultural and religious beliefs that discourage suicide and support self-preservation



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### Psychological Vulnerability

1. Hopelessness, Pessimism
2. Impulsivity
  1. Aggression
  2. Affect regulation deficits
  3. Emotional lability
3. Impaired Problem Solving Skills
  1. Low assertiveness
  2. Social problem-solving deficits (NPO, ICS, AS)



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### Social Vulnerability

- Parental psychiatric illness
- Family history of suicide
  - (11.6% of 1<sup>st</sup> degree relatives; 15.6% of “aggressive suicides”, Serotonin? )
- History of abuse, neglect, bullying
- Chaotic, punitive home environment
- Grief
- Disconnection, “drifting”, “anomie”
- Homosexuality



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### Availability of Lethal Means

- Guns
  - Odds Ratio 10.4 if guns in home
  - Rate of suicide increased most during 1<sup>st</sup> year after purchase; 75/100,00)
- Bridges
- Train tracks



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## Teen Suicide Clusters Contagion

- Goethe "Sorrows of Young Werther" (1774)
- 5% of adolescent suicides
- Media exposure, community response
- Peers, classmates (often *not* close friends)



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*"What a torment it is to see so much loveliness passing and repassing before us, and yet not dare to lay hold of it!"*

- Johann Wolfgang von Goethe, *The Sorrows of Young Werther*, 1774



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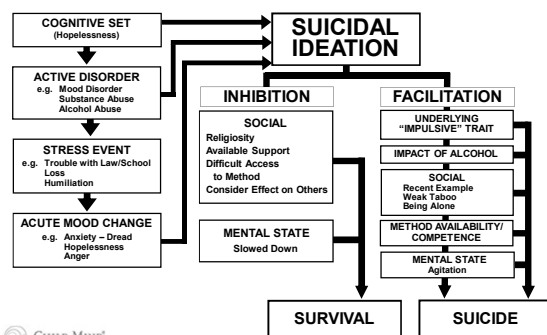


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## Pathways to Suicide

(D. Shaffer, MD)



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## QPR Gatekeeper Training

### Question Persuade Refer

Ask a question, save a life

- Screening and triage
- QPR is not a risk assessment
- QPR is not a form of counseling or treatment
- QPR does offer hope through positive action
- Appropriate for nursing staff, teachers



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## CDC

### Suicide Prevention Strategies

Strategy	Approach
Strengthen economic supports	•Strengthen household financial security •Housing stabilization policies
Strengthen access and delivery of suicide care	•Coverage of mental health conditions in health insurance policies •Reduce provider shortages in underserved areas •Safer suicide care through systems change
Create protective environments	•Reduce access to lethal means among persons at risk of suicide •Organizational policies and culture •Community-based policies to reduce excessive alcohol use
Promote connectedness	•Peer norm programs •Community engagement activities
Teach coping and problem-solving skills	•Social-emotional learning programs •Parenting skill and family relationship programs
Identify and support people at risk	•Gatekeeper training •Crisis intervention •Treatment for people at risk of suicide •Treatment to prevent re-attempts
Lessen harms and prevent future risk	•Postvention •Safe reporting and messaging about suicide



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## Inventories to Assess Suicidality

Beck Depression Inventory (Items “2” and “9”)

Reynolds Adolescent Depression Scale (RADS)

Children’s Depression Rating Scale (CDRS)

Beck Hopelessness Scale (BHS)

Scale for Suicide Ideation (SSI)

Reynolds Suicide Ideation Questionnaire (RSIQ)

Columbia Scale (C-SSRS)



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## C-SSRS

This version of the C-SSRS has been modified for use by LA County  
Department of Mental Health on 9/26/15

### COLUMBIA-SUICIDE SEVERITY RATING SCALE (C-SSRS)

Since Last Visit SCREENED: Clinical  
Version 3/14/09

Primm, K.; Brown, R.; Lavin, C.; Gould, M.; Stanley, R.; Brown, G.; Fisher, P.; Zeleny, J.;  
Borke, A.; Oquendo, M.; Mann, J.

Disclaimer

This scale is intended to be used by individuals who have received training in its administration. The questions contained  
in the Columbia Suicide Severity Rating Scale are suggested guides. Ultimately, the determination of the presence of  
suicidal ideation or behavior depends on the judgment of the individual administering the scale.

Definitions of relevant suicidal events in this scale are based on those used in *The Columbia Suicide History  
Pages*, developed by John Mann, MD and Martin Oquendo, MD, Center for the Study of Suicide, Department of  
Psychiatry, New York State Psychiatric Institute, 1015 Riverside Drive, New York, NY 10032. Copyright © A.  
Lewinsohn & B. Rounsaville, J. J. Roth. Status of the revised Columbia Suicide Severity Rating Scale, *Journal of  
Affective Disorders*, 104: 1-10 (2007).

For reprint of the C-SSRS contact: Kelly Proulx, PhD, New York State Psychiatric Institute, 1015 Riverside Drive, New  
York, New York 10032. requests and pricing information: contact: cprlx@nyspi.yale.edu  
© 2009 The Research Foundation for Mental Hygiene, Inc.



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## Adolescent Mental Health Screening “Every Teen, Every Encounter”

- Institute of Medicine
- US Preventative Services Task Force
- American Academy of Pediatrics
- American Medical Association
- Society for Adolescent and Medicine
- American Academy of Family Physicians
- NAMI



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## Assess “Intent”

1. Preparation
2. Sense of “confidence” in carrying it out
3. Level of secretiveness
4. Motivation
  - Escape, surcease, solve-problems
  - End pain and suffering, relief
  - Get back at someone, make them pay



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## Assess “Perceived Lethality”

- Clarify method  
(Firearm, Jumping, Pills, Hanging, Auto, Train)
- “How deadly did you think this would be?”  
(Level of lethality may be misjudged)



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## Cognitive Vulnerabilities: Key Targets in Treatment

1. Hopelessness, helplessness, pessimism
2. Maladaptive beliefs about oneself, others, the future (e.g., abandonment, unlovability, rejection)
3. “Suicidogenic beliefs”
4. Impaired problem-solving, low motivation
5. Non-specific autobiographical recall, perceptual bias
6. Morbid, self-punitive perfectionism.



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## TASA Protocol

### Treatment of Adolescent Suicide Attempters

- Safety plan
- Case management
- Chain analysis of attempt
- Address suicidal, depressive cognitions
- Enhance affect regulation

Brown et al. (2005)



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## Chain Analysis

1. Precipitating event
2. Motive
3. Negative affect
4. Hopelessness
5. Emotion regulation
6. Environmental response



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## Address Environmental Factors

- Availability of means (e.g., guns, pills)
- Family conflict (lack of support)
- Peer problems
- Academic stressors
- Social skills, supports



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## Regular Follow-Up Helps Long-Term Contact May Reduce Risk

- 834 inpatients (MDD or suicide)
- Randomized to follow-up contact / no-contact
- Letter + 24 contacts over 5 years
- Significant reduction: 1.7% vs 3.6%



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## On the Edge



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## Summary

- Adolescent suicide is multiply determined, multiple pathways
- Statistical prediction of risk is not possible
- Model-based interventions (Shaffer; Bridge, Goldstein & Brent) facilitate formulation
- Evidence-based practices (CBT, DBT, IPT) are promising; stay close to the data
- Flexible, modular approaches allow for individually-tailored, "prescriptive", "precision" treatment



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### Teen Suicide Prevention

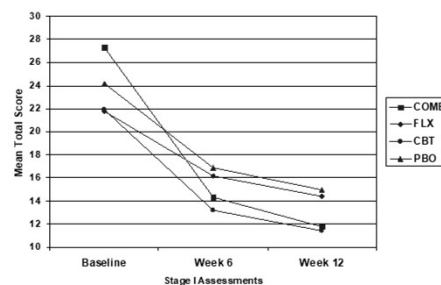
• What can help:

- 1) Annual school-wide depression, suicide screenings
- 2) Regular screenings by medical professionals; "Every child, every encounter"
- 3) Teen resources: "Text a Tip", "Safe2Say", Change the Culture
- 4) Suicide training for adults: QPR
- 5) Embed suicide education in coursework, workshops
- 6) Every parent talks explicitly about suicide risk with their teens; parent seminars
- 7) Rapid referral network of trained clinicians; make treatment easily available, free (i.e., CWD-A)
- 8) Increased funding for mental health clinician workforce
- 9) More suicide research funding



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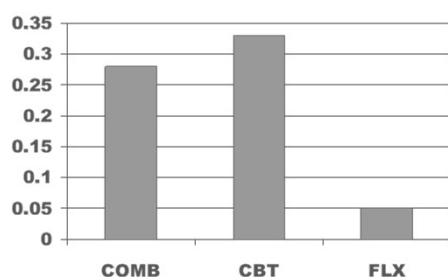
### SIQ : ITT Adjusted Means



TADS

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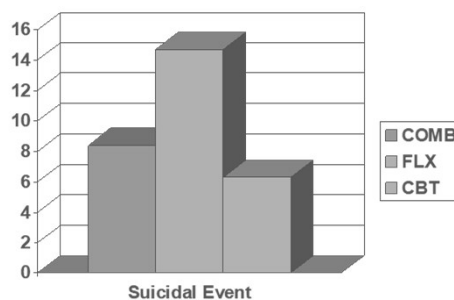
### Acute Effect Size for RSIQ (ITT)



TADS

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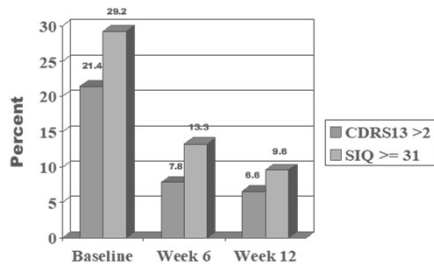
### Percentage of Patients with a Suicidal Event by Week 36



TADS

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### Teen Suicide Improves with Treatment (OC)



(TADS) Team. (2007). *Archives of General Psychiatry*, 64 (10), 1132-1144.



TADS

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### Does CBT Work?

#### "Robust" Early Support

- Reinecke et al. (1998)  
ES = 1.02    n=6 (CBT only)
- Lewinsohn & Clarke (1999)  
ES = 1.27    n=12
- Michael & Crowley (2002)  
ES = 0.72    n=14



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### The Broader View of the Literature "Curb Your Enthusiasm"

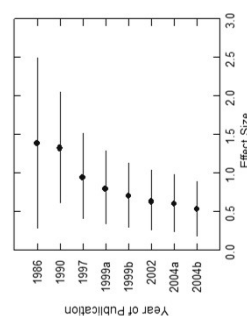
- Weisz, McCarty, & Valeri (2006)  
Review of 35 controlled studies (31 of CBT)  
Effect size = .34     $Z=4.57$      $P<.01$   
Effects show generality and specificity

"Effects are significant, but modest in their strength, breadth, and durability"



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Figure 3. Cumulative effects and 95% confidence intervals for CBT by publication year.



1986 = Reynolds & Coats, 1990 = Lewinsohn et al., 1997 = Brent et al., 1999a = Rounsello & Bernal, 1999b = Clarke et al., 2002 = Clarke et al., 2004a = Rabideau et al., 2004b = TADS.



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### Why the Decline?

(Klein, Jacobs, & Reinecke, 2007)

- A common pattern in outcome research
- Increasingly severe, chronic, comorbid, and functionally impaired participants
- More stringent control conditions, randomization
- Fixed effects requires homogeneity of ES across samples (RRM may be preferred)
- ITT rather than completer analysis
- Reliance on published, peer-reviewed findings



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### A Comprehensive Review

"The Kids Are All Right"

- Review of 750 treatment protocols from 435 studies.
- Scored on 5-level level of evidence
- 21 controlled studies
- "Level 1: Best Support"

Effect size = .87 (CBT Alone)  
1.47 (CBT + Rx)  
.95 (CBT with parents)

Chorpita, B. et al. (2011). Evidence-based treatments for children and adolescents: An updated review of indicators of efficacy and effectiveness. *Clinical psychology: Science & practice*, 18 (2): 154-181.



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### A More Recent Review

- Zhou et al. (2015) *World Psychiatry*
- 52 RCT's, 116 Conditions, 9 treatments, 3805 patients
- Post-treatment: Only CBT and IPT consistently more effective than controls (SMD= -.47 to -.96)
- Follow-Up: Only CBT and IPT consistently more effective than controls (SMD= -.26 to -1.05)

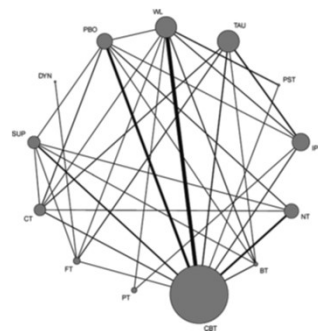
"...IPT and CBT should be considered the best available psychotherapies for depression in children and adolescents"



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### Zhou et al. (2015)

Network Meta-Analysis



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## Current Standards CBT is "A Recommended Treatment"

- American Psychological Association Clinical Practice Guidelines (2018)
- AACAP Work Group on Quality Issues (2007)
- NICE - National Institute for Health and Care Excellence (2005)
- BEST - Cincinnati Children's Hospital Medical Center Best Evidence Statement (2010)
- Society for Clinical Child and Adolescent Psychology (Level One, "Works Well")
- US Preventive Services Task Force (2009)
- CPG-Ministry of Health and Social Policy-Spain (2010)
- GLAD-PC - Group Guidelines for Adolescent Depression in Primary Care (2007)



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## Modular CBT for Depression

Curry, J. & Reinecke, M. (2003). Modular therapy for adolescents with major depression. In M. Reinecke, F. Dattilio, & A. Freeman (Eds.) *Cognitive therapy with children and adolescents*, 2<sup>nd</sup> Ed. New York: Guilford Press.

Reinecke, M. & Ginsburg (2008). Cognitive-behavioral treatment of depression during childhood and adolescence. In J. Abela & B. Hankin (Eds.) *Handbook of depression in children and adolescence*. New York: Guilford Press.

Reinecke, M. & Curry, J. (2008). Adolescents. In M. Whisman (Ed.) *Adapting cognitive therapy for depression: Managing complexity and comorbidity*. New York: Guilford.

Curry, J. & Reinecke, M. (2010). Major depression. In J. Thomas & M. Hersen (Eds.) *Handbook of clinical psychology competencies*. New York: Springer.

Beidel & Reinecke, M. (2014). Cognitive-behavioral treatment for anxiety and depression. In M. Dulcan (Ed.) *American Psychiatric Publishing textbook of child and adolescent psychiatry*. Washington, DC: American Psychiatric Publishing.



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## Teen Suicide Readings

• Brent, D. et al. (2009). The Treatment of Adolescent Suicide Attempters Study (TASA): Predictors of suicidal events in an open treatment trial. *J. Am. Acad. Child Adol. Psychiat.*, 48, 987-996.

• Bridge, J. et al. (2006). Adolescent suicide and suicidal behavior. *J. Child Psychol Psychiat.*, 47, 372-394.

• Goldston, D. (2003) *Measuring suicidal behavior and risk in adolescents*. Washington, DC: American Psychological Association.

• Gould, M. et al. (2011). Youth suicide risk and preventive interventions. *J. Am. Acad. Child Adol. Psychiat.*, 42, 386-405.

• Spirito, A. et al. (2011). Addressing adolescent suicidal behavior: Cognitive-behavioral strategies. In P. Kendall (ed.) *Child and adolescent therapy: Cognitive-behavioral procedures*. New York: Guilford.



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## Evidence-Based Treatments

**American Psychological Association  
Division 12  
Clinical Psychology**

**American Psychological Association  
Division 53  
Clinical Child & Adolescent Psychology**

[www.clinicalchildpsychology.org](http://www.clinicalchildpsychology.org)

[www.childmind.org](http://www.childmind.org)

[www.effectivechildtherapy.com](http://www.effectivechildtherapy.com)



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## Academy of Cognitive Therapy [www.academyofct.org](http://www.academyofct.org)

- Board certification in cognitive therapy
- International, multidisciplinary
- Listserv and newsletter
- International referral list
- Training resources



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## Transforming Children's Lives



The Child Mind Institute is an independent, national nonprofit dedicated to transforming the lives of children and families struggling with mental health and learning disorders. Our teams work every day to deliver the highest standards of care, advance the science of the developing brain and empower parents, professionals and policymakers to support children when and where they need it most.



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## Our Work

### Research



We are at the forefront of neuroscience efforts to find objective biological measures of mental illness that will lead to earlier diagnosis, more individualized treatment methods, and new and better interventions.

### Clinical Care



We provide world-class clinical care to children struggling with mental health and learning disorders. We have helped thousands of children get the help they need in our offices and in their communities.

### Public Education



We equip millions of parents, educators and policymakers with the information they need to end the stigma and misinformation that cause so many children to miss out on life-changing treatment.



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