Adolescent Suicide Attempters: Latest Research & Promising Interventions

Charlotte Haley, Ph.D.

Jennifer L. Hughes

Texas Suicide Prevention Symposium

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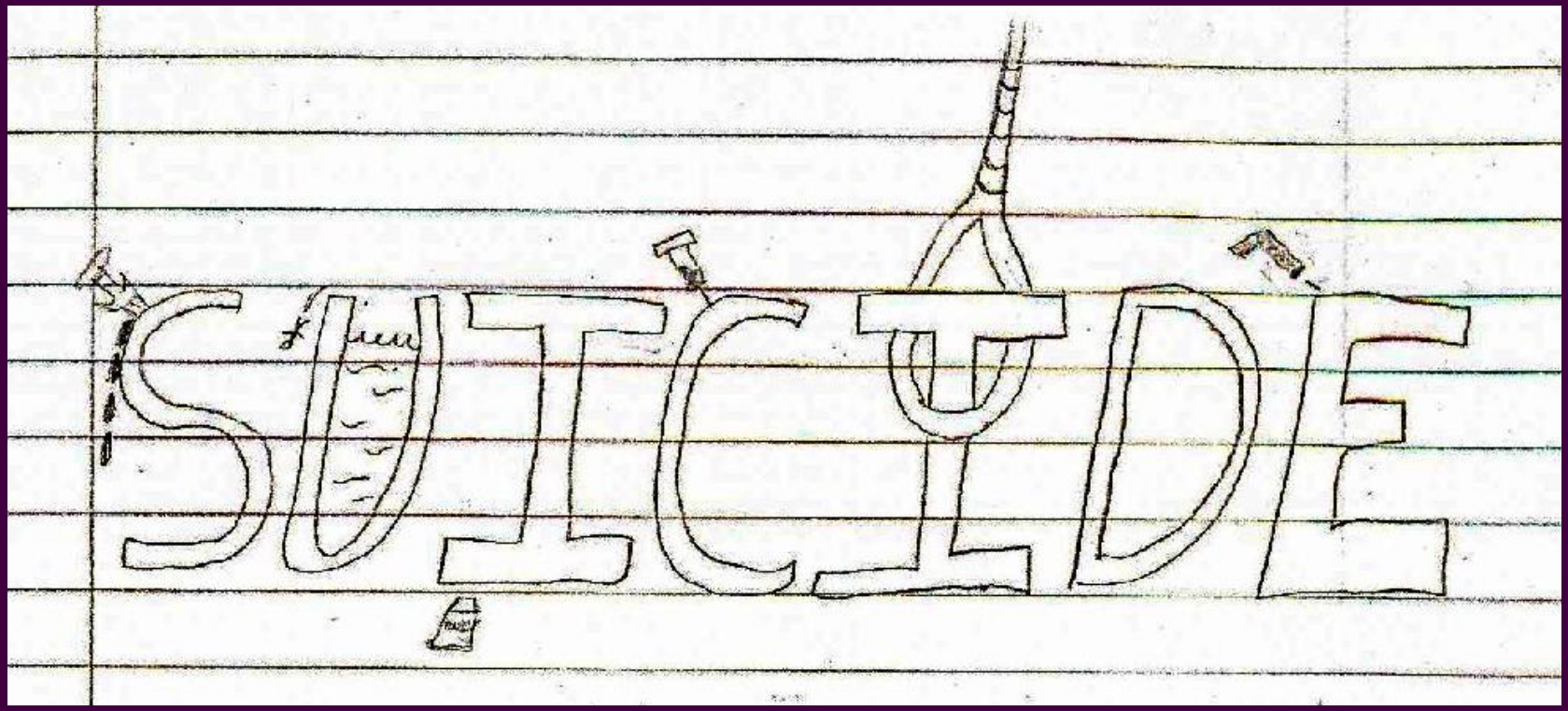
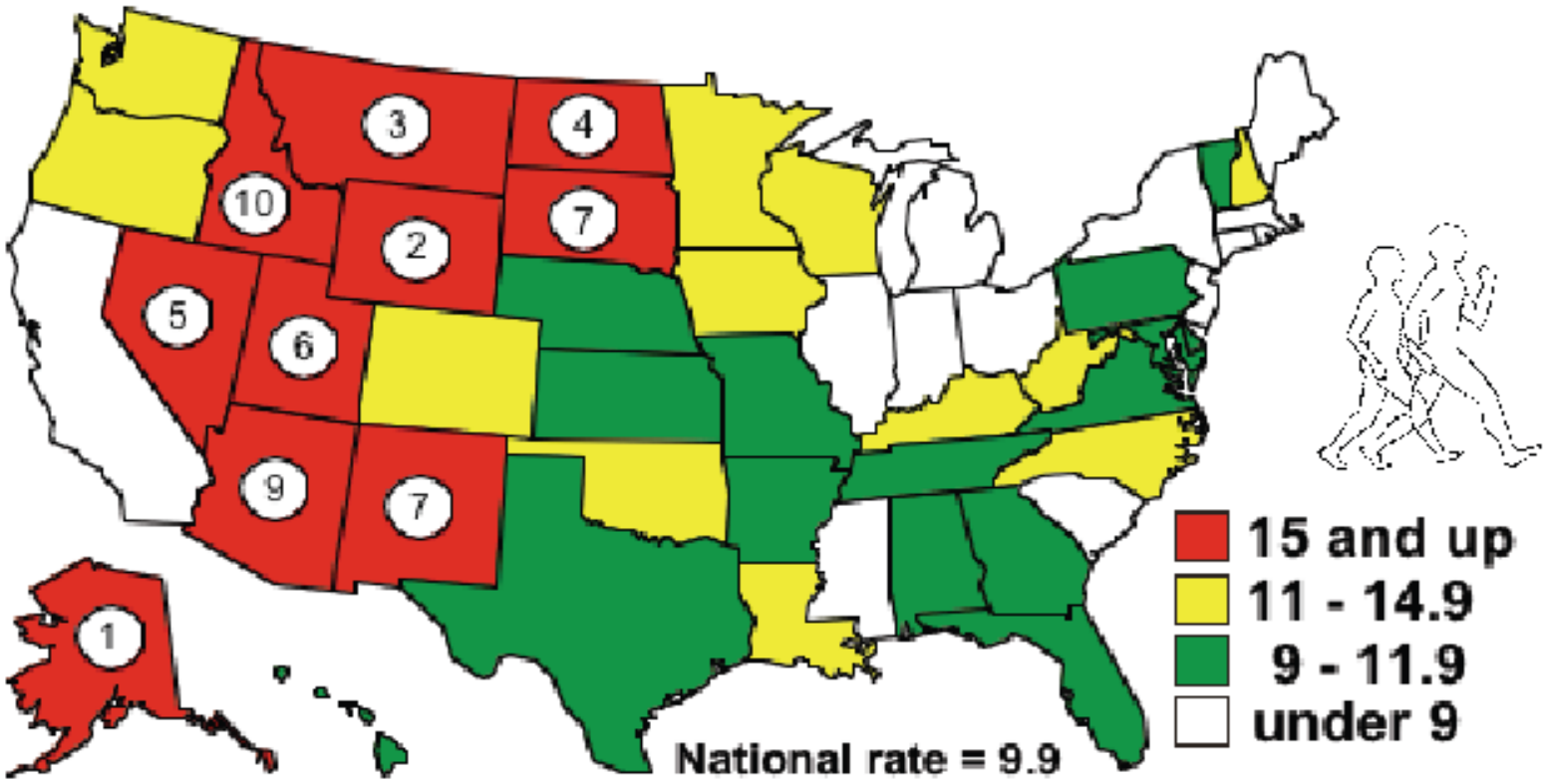

SUICIDE

Suicide: The Numbers

- The 3rd leading cause of death in youth ages 15-19
  - In 15-24 year olds, males are 3.6 times more likely to die by suicide than females.
- In the general population. . .
  - 9% of teens have made an actual suicide attempt
  - 19% of teens have reported suicidal ideation
- In teens with depression. . .
  - 35-50% of depressed teens have made a suicide attempt

Youth Suicide Rates by State

Youth Suicide generally highest in the Mountain States



15-24 yrs of age

2003 Data

Suicidal Ideation & Attempts: Continuum of Suicidal Behavior

- Frequent thoughts of suicide best predictor of suicide attempt (Kienhorst et al., 1990: 9,393 students; Netherlands)
- Most suicide attempters report history of suicidal ideation (Oregon Adolescent Depression Project; OADP; Lewinsohn et al., 1996)
  - 87.8% females
  - 87.1% males

Lifetime Suicide Attempt History: Continuum of Suicidal Behavior

- In community study of 16,000 adolescents, multiple attempts assoc. with health risks (Rosenberg et al., 2005):
  - Heavy alcohol use/hard drug use
  - Sexual assault, Violence
- History of suicide attempts common among adolescents who die by suicide
  - 44% (Brent et al., 1988)
  - 34% (Marttunen et al., 1992)

Suicidal Ideation & Attempts: Continuum of Suicidal Behavior

- Outcome of adolescents hospitalized following suicide attempts
  - Males
    - 8.7% suicide (5 years; Kotila, 1992)
    - 9.0% suicide (4- to 10-years; Motto, 1984)
    - 11.3% suicide (10-15 years; Otto, 1972)
  - Females
    - 1.2% suicide (5 yr follow-up; Kotila, 1992)
- At greatest risk in first three months after attempt, and approximately 30% of adolescent suicide attempters reattempt within 1 year (Bridge et al., 2006)

Psychopathology

- Depressive /Bipolar disorder
- Alcohol/Substance use problems
- Conduct Disorder (pattern of aggressive impulsivity)

Depressive Disorders in Youth and Suicidality

- 85% report significant suicidal ideation; 32% attempt suicide by late adolescence
- Past suicide attempt and current depressive disorder strongest predictors of future suicide attempt
- 1/2 adolescent male suicide victims and 2/3 female suicide victims suffered from depressive disorder

Alcohol/Substance Abuse in Youth and Suicidality

- Adolescents with alcohol abuse/dependence nearly 7X more likely to attempt suicide than others (OADP; Andrews & Lewinsohn, 1992)
- Alcohol abuse predicts eventual suicide in 5-yr follow-up of hospitalized attempters (Kotila, 1992)
- Recent alcohol ingestion common in suicide (28%, Hoberman & Garfinkel, 1988; 51%, Marttunen et al., 1991)

Antisocial Behavior, Aggression, Impulsivity, and Suicidality

- Psychological Autopsy Studies of Completed Suicide
  - 43.4% adolescents displayed antisocial behavior during year (Marttunen et al., 1992)
  - 70% adolescents had a history of antisocial behavior (Shafii et al., 1985)

Social/Interpersonal Factors: Precipitants

- Interpersonal conflict/loss is most common precipitant of death by suicide (Martunnen et al., 1993)
- Interpersonal conflict/loss and legal/disciplinary problems relate to suicide attempts

Social/Interpersonal Factors: Social Support

- In large nationally representative longitudinal study (ADD Health; Bearman & Moody, 2004):
  - social isolation and intransitive friendships were predictors of suicidal ideation for girls
  - a tightly networked school community was protective against suicide attempts for boys.
- In study framed by Durkheim's theory (ADD Health; Haynie et al., 2006):
  - Girls who recently moved 60% more likely than other girls to report suicide attempt – also more victimization, less school attachment, and more social isolation.

Social/Interpersonal Factors: Family Support

- In clinical studies, family environment characteristics predict suicidality:
  - Global family dysfunction related to severity of suicidal thoughts -- mediated by adolescents' psychopathology (Prinstein et al., 2000)
  - Suicidal adolescent inpatients with mood disorders: less perceived family support than non-suicidal inpatients with mood disorders and non-patient adolescents (King, Segal, Naylor, & Evans, 1993)
  - Suicidal adolescent inpatients with less family support more likely to attempt suicide in 6 months following hospitalization (King et al., 1995).

Gay, Lesbian, Bisexual (GLB) Youth

- General Population Surveys (Garofalo et al., 1998; Remafedi et al., 1998)
  - 42% GLB Youth: Suicidal Ideation past year
  - 28% GLB Youth: Suicide Attempt past year
- Unique Risk Factors
  - Stigmatization, discrimination
  - Double Bind: Disclosure vs. Nondisclosure

Availability of Means: Firearms

- Firearms used by 66.4% male suicide victims; 48.3% female suicide victims (McIntosh, 2000)
- Availability of firearms in home differentiates adolescent suicide victims (74.1%) from hospitalized suicidal adolescents (33.9%) (Brent et al., 1998)

Risk factors for Suicidality

- Current or lifetime psychopathology (mood disorders most common)
- History of previous attempts or self-injurious behavior
- Hopelessness
- Impulsivity
- Lack of affect regulation
- Poor problem-solving skills
- Social skills deficits
- Hostility and aggression
- Drug or alcohol abuse
- High situational stress
- Parental psychiatric conditions
- Family discord, neglect, or abuse
- Availability of lethal agents
  - Brent et al. (2000) found that suicide completion risk is increased if family has a handgun in the home
- Suicide Contagion

Protective Factors

- Positive relationship with family
- Positive connection between child and school; adult and work
- Academic success
- Pro social peer group
- Religious affiliation
- Fair number of reasons for living
- Future goals
- Treatment Compliance

Cognitive Behavior Therapy for Suicide Prevention (CBT-SP)

Developed in

Treatment of Adolescent Suicide Attempters Study (TASA)

Treatment of Adolescent Suicide Attempters (TASA) Study

- A multi-site NIMH-sponsored study of depressed suicidal adolescents
- Ages 12-18, with depression (MDD, Dysthymia, or Depression-NOS) and a suicide attempt within past 90 days
- Treatment: medication alone vs. CBT alone vs. medication and CBT (randomization vs. choice)
- A feasibility study

Investigators for TASA

- NIMH (Ben Vitiello, Ann Wagner, Joanne Severe)
- Columbia / NYU (Larry Greenhill, Barbara Stanley, Kelly Posner, Barbara Coffey, J. Blake Turner)
- **Dallas (Graham Emslie, Betsy Kennard, Taryn Mayes)**
- Duke (Karen Wells, John Curry, John March)
- Johns Hopkins (John Walkup, Mary Cwik, Mark Riddle)
- Pittsburgh (Oscar Bukstein, David Brent, Tina Goldstein, Kim Poling)
- Consultants (Greg Brown (Penn), David Goldston (Duke)

Why Study the Treatment of Adolescent Suicide Attempters?

- Suicide is the 3rd leading cause of death in adolescents
- Adolescent suicide attempt is the single biggest risk factor for completed suicide
- No empirically supported treatments for suicide attempters
- SSRI's and suicidality, impact of CBT on suicide

Challenges to Treatment Trials with Suicide Attempters

- Often suicidal individuals excluded from clinical trials
- IRB's get very nervous about studies with such populations
- Need large samples since it is a prevention trial
- Suicidal individuals have multiple needs, how to prioritize?

Cognitive Behavior Therapy for Suicide Prevent (CBT-SP)

- Main focus: reduction of suicidal risk
  - Can be added to ongoing treatment
  - Goal: help teens use more effective ways of coping with stressors that precipitate suicidal crises
- Coping through training in cognitive, behavioral, and interactional skills

Heritage of CBT-SP

- CBT for suicide attempters (Brown, Beck)
- DBT (Linehan, Miller, Stanley)
- TADS (Curry, Wells, Clarke)
- TORDIA (Brent)

General Principles of CBT-SP

- Time limited (18 sessions over 6 months)
- Individualized case conceptualization
  - Precipitants
  - Vulnerabilities
  - Thoughts and feelings
- More adaptive thinking patterns
- Problem-solving
- Management of distress and emotion arousal

General Principles of CBT-SP

- Primary treatment target: reducing suicidal risk
  - Not a diagnostic-specific treatment
  - For example, depression is the focus of the treatment to the extent that the depression drives the suicide attempt
- Prioritizing treatment
  - Life-interfering behaviors
  - Therapy-interfering behaviors
  - Quality of life issues

Structure of Sessions

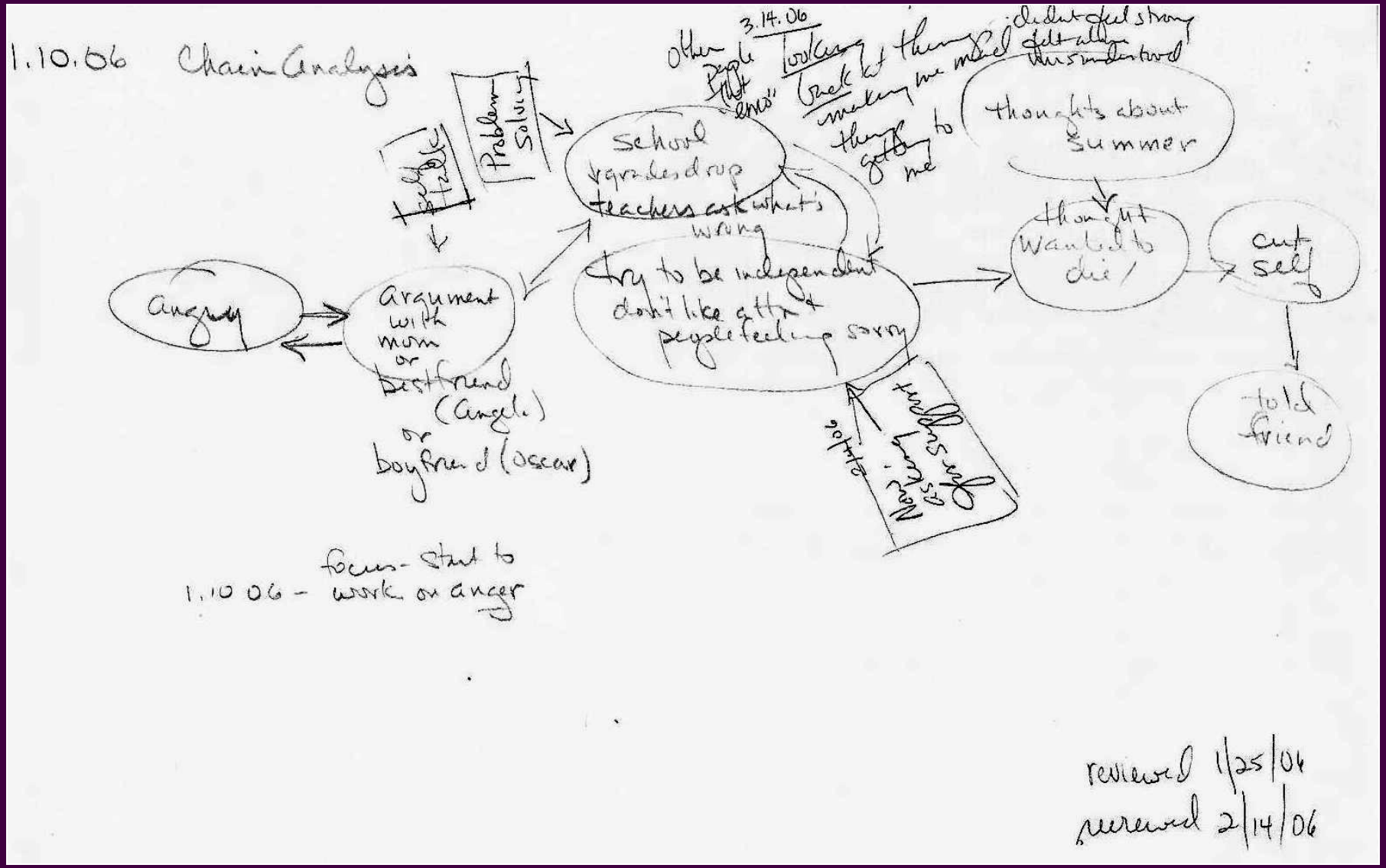
- 1 hour, except first 2 are 1.5 hours for chain analysis/safety plan
- Agenda: life-threatening, therapy-threatening
- Mood and suicide check
- Use of safety plan
- Recall of last session, homework
- Review skill or learn new skill, based on case conceptualization

Acute Treatment (first 3 sessions)

- Chain analysis
- Safety Planning
- Psychoeducation
- Developing Reasons for Living and Hope Kit
- Case conceptualization

Chain Analysis

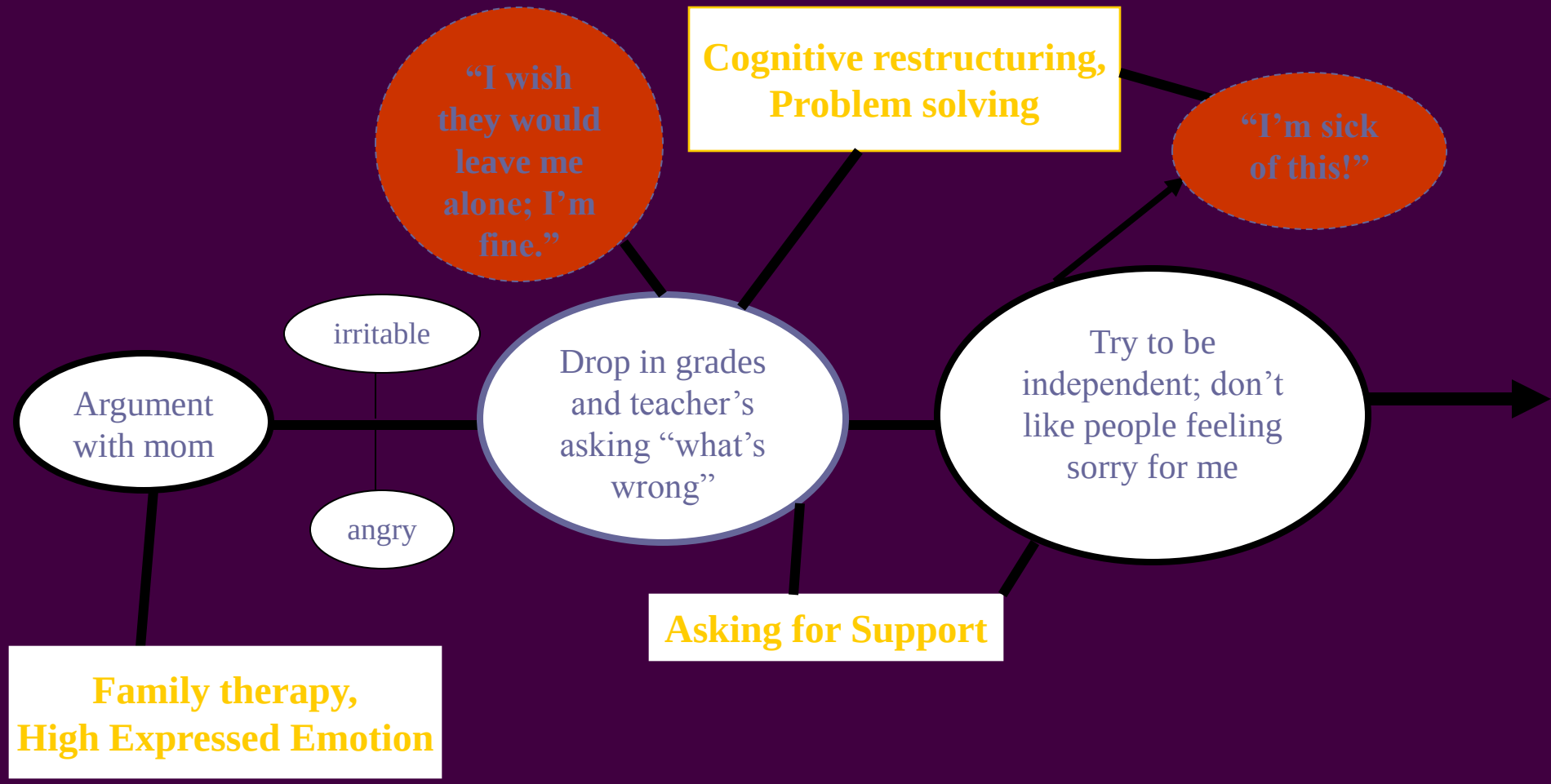
- Reconstruct events, thoughts, feelings leading up to the suicide attempt
- Freeze frame (Wexler, 1991)
- Identifies precipitants, motivation, intent, current reaction, reaction of environment
- Identified stressors and vulnerabilities, in order to develop a case conceptualization


1.10.06 Chain Analysis
3.14.06
Other people
Looking back at them making me mad
didn't feel strong
thoughts about summer
thoughts
Problem Solving
school
teachers ask what's wrong
angry
argument with mom or best friend (Angela) or boyfriend (Oscar)
try to be independent don't like attn
people feeling sorry
Not living as independent
cut self
told friend
1.10.06 - focus - start to work on anger
reviewed 1/25/06
reviewed 2/14/06

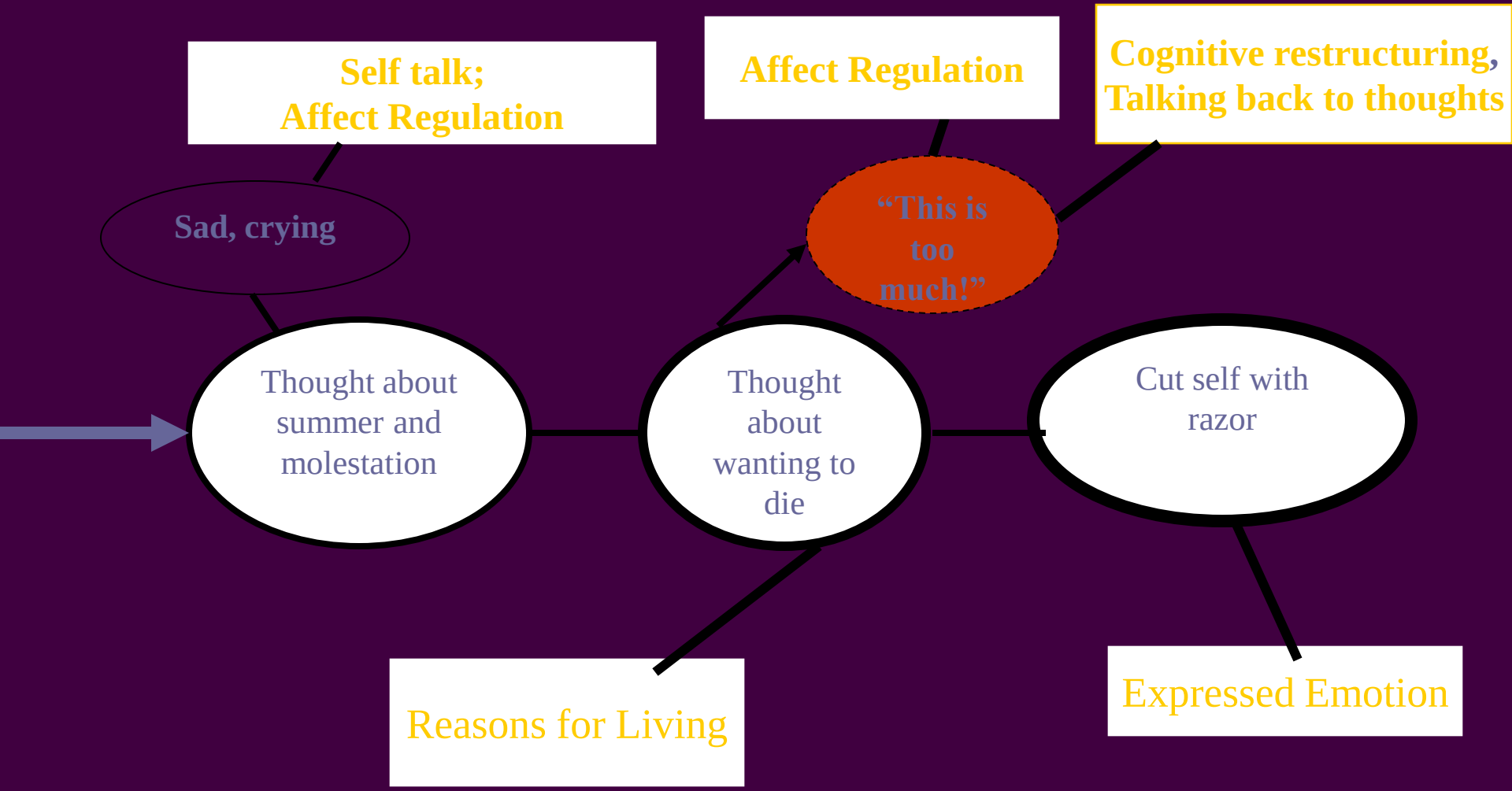
Chain Analysis: Example

- TH: Could you tell me the events leading up to your suicide attempt?
- PT: I was feeling low, so I drank some of my dad's scotch and called my girlfriend
- TH: And?
- PT: She hung up on me.
- TH: What did you think and feel then?
- PT: I was bummed, thought what the hell, might as well end it.
- TH: Did you consider anything else?
- PT: Not really...

Chain Analysis: Example with Skills



Chain Analysis: Example with Skills



Safety Plan

- Plan to help patients stay safe until next treatment session
- Prioritized and specific set of coping strategies and sources of support
- Internal strategies: emotion regulation like distraction, relaxation
- External strategies:
  - “With a Friend” coping
  - “Tell Someone” coping
- Clinical contact information

Safety Plan (2)

- Parents and patient involved in planning
  - Identify barriers to implementation
  - Remove or secure lethal agents
  - Modify precipitant if possible through truce or school visit
  - Identify coping mechanisms
  - Emotional thermometer
- Written on card

Example of a Safety Plan

- Precipitant: fighting about school work
- Truce, school visit
- Internal coping: listening to music, exercise, meditation, leaving stressful discussion
- External coping:
  - “With a Friend”: go see a movie, go rollerblading
  - “Tell Someone”: talking with parents
- Clinical contact: therapist, on-call clinician, ER

Psychoeducation

- Depression as illness, not anyone's fault
- Risks/benefits of treatment options
- Expectable course and outcomes, including possibility of reversal and recurrence
- Depression runs in families; untreated depression in parents makes child less likely to respond to treatment

Reasons for Living and Hope

- How hopeful are you that this treatment can help you? What would increase/decrease it?
- What things would make you less/more likely to attempt suicide?
- Do you have things worth looking forward to and staying alive for?

2.8.06 AKD

TASA

REASONS FOR LIVING

Teen Work Book

- ☐ ✓ Travel (upcoming vacations, previous vacations, sightseeing, taking a cruise, visiting family and friends)
- ☐ ✓ Going to the movies
- ☐ Competitive sports (baseball, basketball, volleyball, field hockey, tennis, golf, martial arts)
- ☐ Outdoor sports (fishing, hunting, hiking, camping, horseback riding)
- ☐ ✓ Enjoying music (listening to music, thinking about a favorite performer or musical group, playing an instrument, composing songs, writing lyrics, singing, going to concerts, dancing)
- ☐ Personal care (sunbathing, massage, taking a bath/shower, manicure)
- ☐ Beautiful scenery
- ☐ Crafts (woodworking, sewing, knitting, making things)
- ☐ Learning martial arts (Karate, Judo)
- ☐ ✓ Being artistic (drawing, painting, sculpting, art appreciation, going to museums, etc)
- ☐ ✓ Cars
- ☐ Boats
- ☐ Exercise and/or being physically fit (walking, running, jogging, lifting weights, losing weight, gaining weight)
- ☐ ✓ Good conversations (talking on the phone, instant messaging)
- ☐ ✓ Basic pleasures (eating, sleeping)
- ☐ ✓ Family Relationships (brothers, sisters, parents)
- ☐ ✓ Religion (practicing religion, praying, having faith, being moral, attending religious services)
- ☐ ✓ Family stuff (spending time with family, getting married someday, being a parent someday)
- ☐ ✓ Other hobbies (cooking, watching TV, shopping)
- ☐ ✓ Writing (books, poetry, newspaper, articles, making journal entries, keeping a personal diary)
- ☐ ✓ Driving, working on cars
- ☐ Buying gifts for people
- ☐ Having a pet
- ☐ ✓ Career Goals (becoming an actor/actress, veterinarian, doctor, lawyer, stand-up comic etc.)
- ☐ Reading (books, magazines, poetry, newspapers, comic books)
- ☐ Playing games (video games, board games, cards, solving puzzles)
- ☐ Internet (surfing the web, creating your own website, using chat rooms)
- ☐ ✓ School (getting homework done, getting straight A's, just passing a course, being top of the class, making friends, not being bullied, a favorite course, joining a club, after-school activities)

REASONS I WANT TO ADD:

- ☐ going to college.
- ☐
- ☐

reviewed BDK 2.8.06

Hope Kit

- Specific (tangible) reasons for living
  - Pictures of loved ones
  - Religious reminders (if have moral objection to suicide)
  - Places that give pleasure (beach, mountains)
  - Aspirations (business card in chosen profession)

1-25-06

sunrise greetings

* "Take your time."
* Take sure your not taking a big deal out of a small issue!
* use skills from coping card
* Look at hope kit
* Talk to God

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Case Conceptualization

- Based on chain analysis, identify cognitive, behavioral, affective, and contextual problems
  - Interventions to address these issues
  - Collaborate with the patient to prioritize interventions
- Choose interventions based on product of likelihood of success and willingness of patient/family to carry out a particular intervention

Case Conceptualization: Example

- Patient made attempt because could not “stand pain” of depression, precipitated by fight with mother
- Alternative approaches: focus on distress tolerance or on interpersonal interaction with mother
- Patient and mother both felt patient too fragile and labile to deal with family issues, initial focus on depression and distress tolerance

Middle Phase: Individual Skills Modules

- Mood monitoring
- Behavior activation/increasing pleasurable activities
- Emotional regulation/distress tolerance
- Cognitive restructuring
- Problem-solving
- Mobilizing social support
- Assertiveness/communication skills

TASA

WHAT FILTER IS ON MY COMPUTER?

Teen Work Book

DANGEROUS AUTOMATIC THOUGHTS

CHECK THE BOXES NEXT TO THE THOUGHTS YOU RECOGNIZE!

- ☐ My parents don't love me.
- ☑ I am never going to have a boyfriend/ girlfriend.
  "There's going to be lots of other boys. I'm only 16." *frequent
- ☐ I am stupid.
- ☐ The future seems hopeless to me.
  I'm not marrying him- There's someone else out there."
- ☐ There is no point in trying.
- ☐ What's the use?
- ☐ Nobody really likes me.
- ☐ You can't trust anyone.
  "I do have a great relationship w/ dad & stepmom.
- ☑ This problem just cannot be solved.
  ~~Every problem has a solution - have to try~~
  "I'm lucky that I don't have to deal w/ it every day."
- ☐ There is no way out but death.
- ☐ There is no future for me because I am gay.
- ☑ What's the point of this therapy?
  "We're not spend $" "I get to miss school."
- ☐ Therapy is worthless.
  "It does make me feel better - I get to get things off my chest."

Family Modules

- Pleasurable activities
- Communication/Problem-solving
- Emotion regulation/reducing hostility
- Increasing support
- Cognitive restructuring

Relapse Prevention

- Toward end of acute treatment
- In vivo guided imagery to reconstruct events and induce feelings leading up to the attempt
- Preparation, review of suicidal crisis, review of skills, review of high risk scenario, debriefing and follow-up
- Get to re-do the attempt but using new skills

Continuation Phase

- 6 sessions over the next 3 months
- New skills, or consolidation of already learned ones
- Anticipation of future crises and strategies to cope with them
- Warning signs of depression, goals achieved by therapy, skills learned, anticipate future crises, identify need for further treatment

Pilot Study of TASA

- N=124 depressed adolescent suicide attempters
- Mostly open trial, 110 received CBT-SP
- Mostly female, age 16, Caucasian
- Depressed, 2.3 attempts

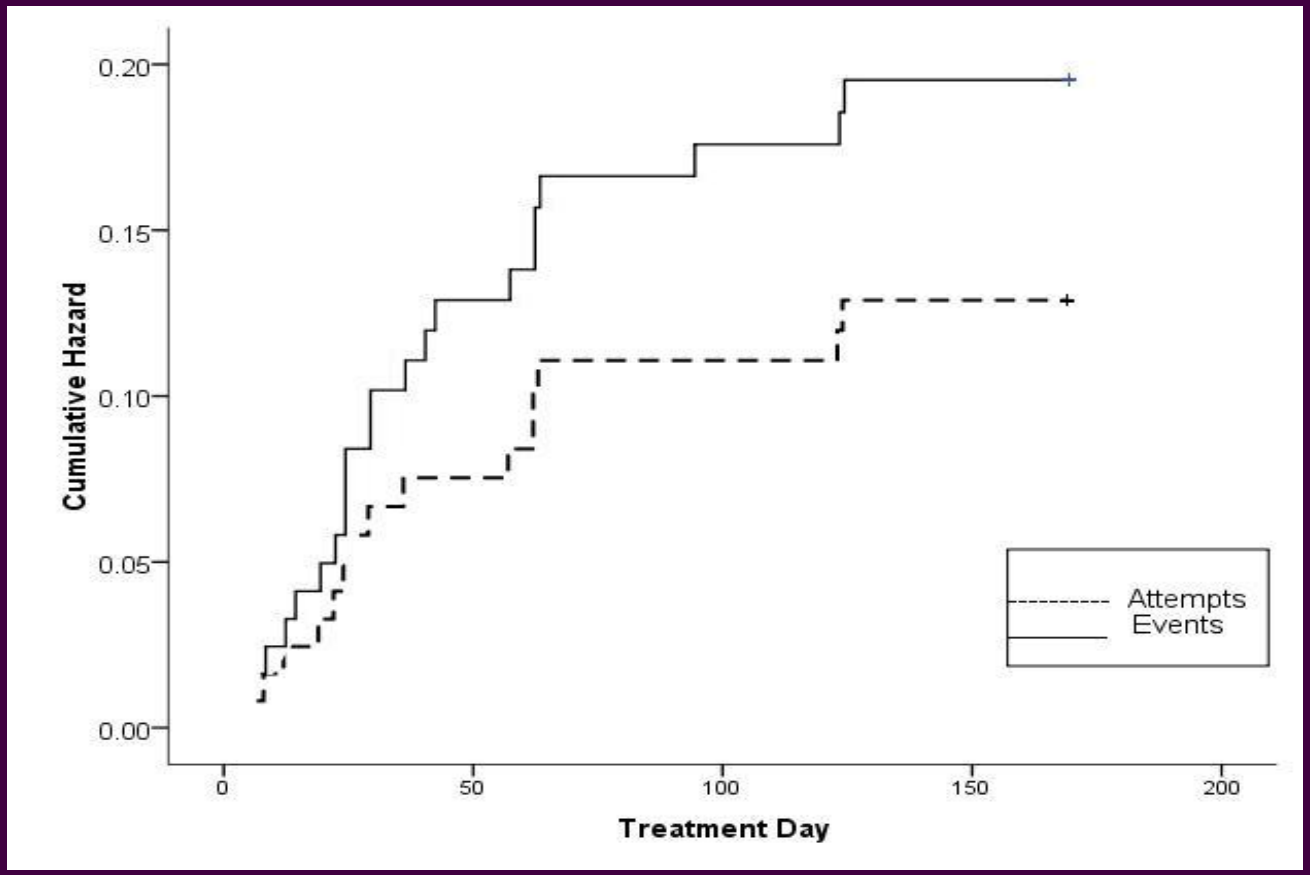
Retention

- 72.4% retained for full dose of treatment
- Total CBT-SP sessions (M=12.8, SD=5.2)
- Family sessions (M=5.7, SD=3.9)

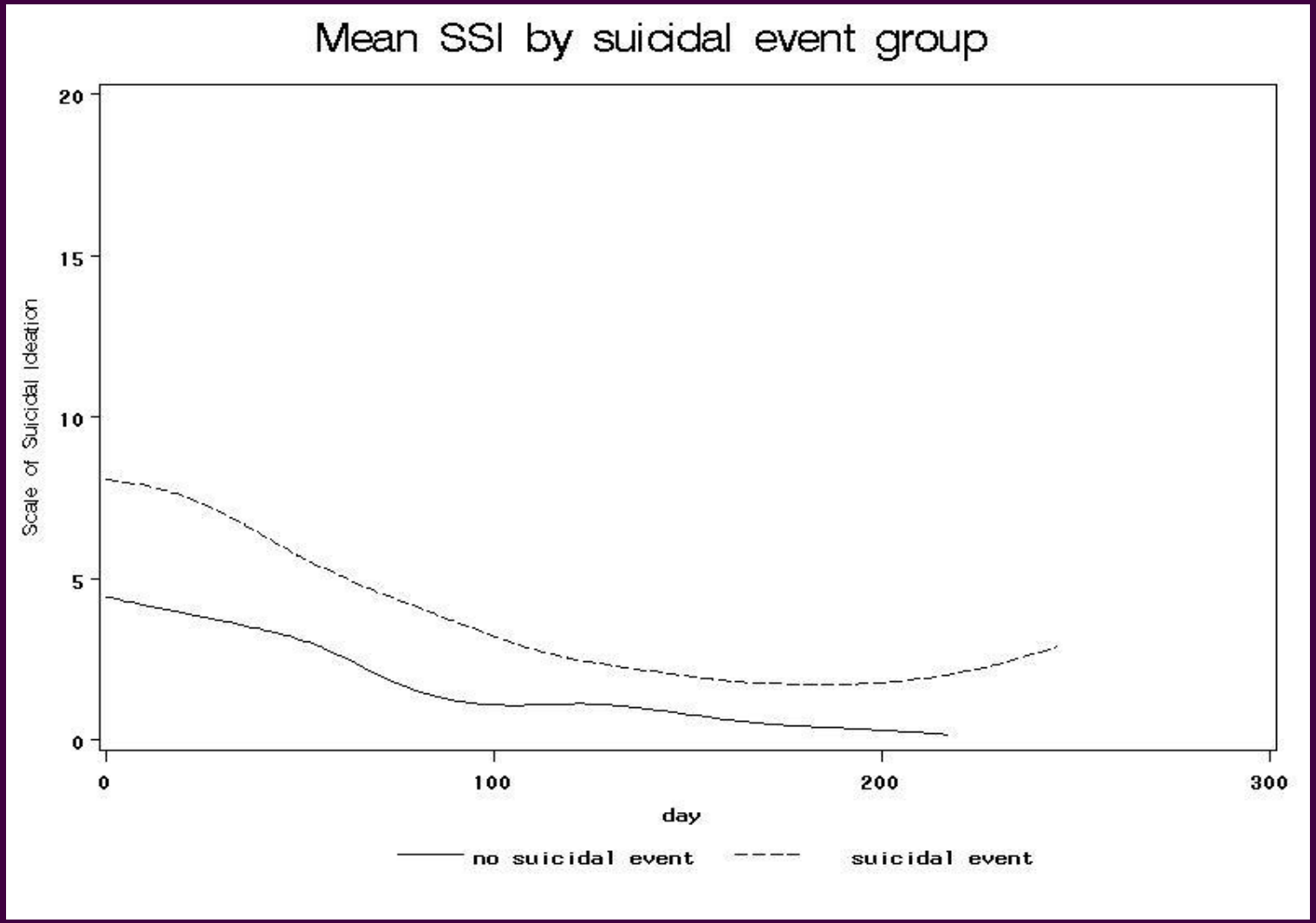
Acceptability of CBT-SP

- N=42
- 86% would recommend treatment to a friend
- 100% reported that TASA was helpful, with 44.7% reporting the CBT-SP was most helpful
- Assessment of suicidality: 30% no impact, 19% positive impact, 30.9% mildly negative, and 11.9% very aversive

Time to Onset of Suicidal Events and Attempts in TASA*



*Brent et al., 2009


Mean SSI by suicidal event group
Scale of Suicidal Ideation
20
15
10
5
0
0
100
200
300
day
no suicidal event
suicidal event

Predictors of Onset/Time to Onset of Suicidal Events (OR's)

	Occurrence	Time to Event
Income	2.6	2.2
Caucasian race	-----	2.6
Site	4.5	4.6
Family cohesion	-----	0.94
No. previous attempts	-----	1.5
Lethality	0.5	0.6
Sexual abuse	18.2	4.4

Conclusions

- CBT-SP feasible, well-accepted
- 40% of events occurring within first 4 weeks–may need more intense intervention then
- Importance of improving suicidal ideation and functioning early
- Role of trauma

TASA References

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