

Cognitive Therapy for Suicide Prevention

Gregory K. Brown, Ph.D.

Center for the Treatment and
Prevention of Suicide

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*Office of Injury Surveillance and Prevention
New Jersey*



Department of Psychiatry
University of Pennsylvania

Objectives

1. To describe a **public health approach** to suicide prevention
2. To describe a **cognitive therapy intervention** for suicide attempters and the effectiveness of this intervention
3. To describe some of the **challenges** in implementing a community-based intervention for suicide prevention

Public Health Approach to Prevention

**Dissemination;
Program Evaluation**

**Community
Implementation**

**Develop & Test
Interventions**

**Identify Causes;
Risk & Protective Factors**

**Define the problem;
Surveillance**

**Completed
Suicides**

PROBLEM

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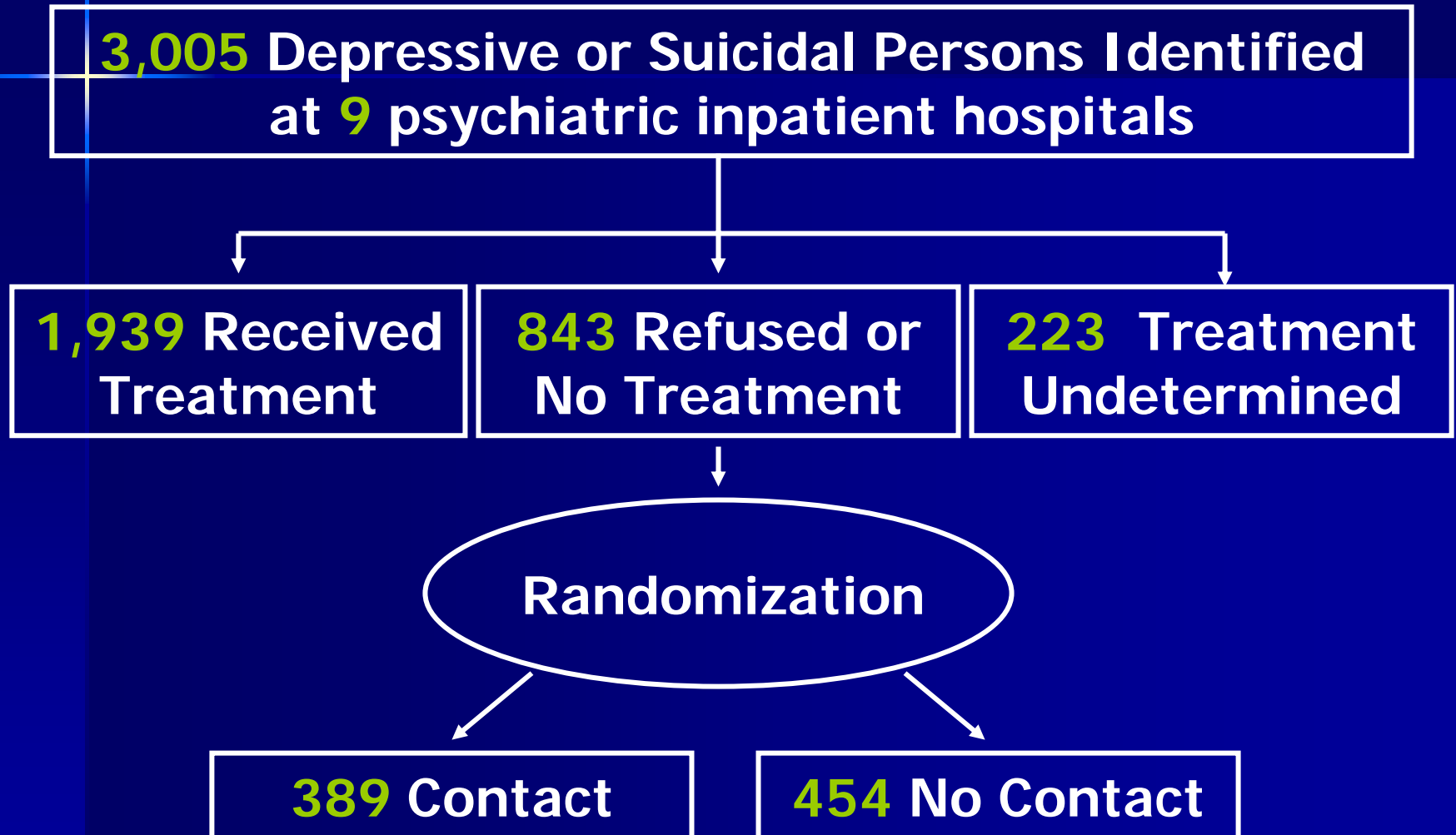
RESPONSE

2004 Leading Causes of Death

Rank	Age Groups									
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+
1	Congenital Anomalies 5,622	Unintentional Injury 1,641	Unintentional Injury 1,126	Unintentional Injury 1,540	Unintentional Injury 15,449	Unintentional Injury 13,032	Unintentional Injury 16,471	Malignant Neoplasms 49,520	Malignant Neoplasms 96,956	Heart Disease 533,302
2	Short Gestation 4,642	Congenital Anomalies 569	Malignant Neoplasms 526	Malignant Neoplasms 493	Homicide 5,085	Suicide 5,074	Malignant Neoplasms 14,723	Heart Disease 37,556	Heart Disease 63,613	Malignant Neoplasms 385,847
3	SIDS 2,246	Malignant Neoplasms 399	Congenital Anomalies 205	Suicide 283	Suicide 4,316	Homicide 4,495	Heart Disease 12,925	Unintentional Injury 16,942	Chronic Low. Respiratory Disease 11,754	Cerebrovascular 130,538
4	Maternal Pregnancy Comp. 1,715	Homicide 377	Homicide 122	Homicide 207	Malignant Neoplasms 1,709	Malignant Neoplasms 3,633	Suicide 6,638	Liver Disease 7,496	Diabetes Mellitus 10,780	Chronic Low. Respiratory Disease 105,197
5	Unintentional Injury 1,052	Heart Disease 187	Heart Disease 83	Congenital Anomalies 184	Heart Disease 1,038	Heart Disease 3,163	HIV 4,826	Suicide 6,906	Cerebrovascular 9,966	Alzheimer's Disease 65,313
6	Placenta Cord Membranes 1,042	Influenza & Pneumonia 119	Chronic Low. Respiratory Disease 46	Heart Disease 162	Congenital Anomalies 483	HIV 1,468	Homicide 2,984	Cerebrovascular 6,181	Unintentional Injury 9,651	Diabetes Mellitus 53,956

Do psychosocial interventions actually prevent suicide?

Study Design

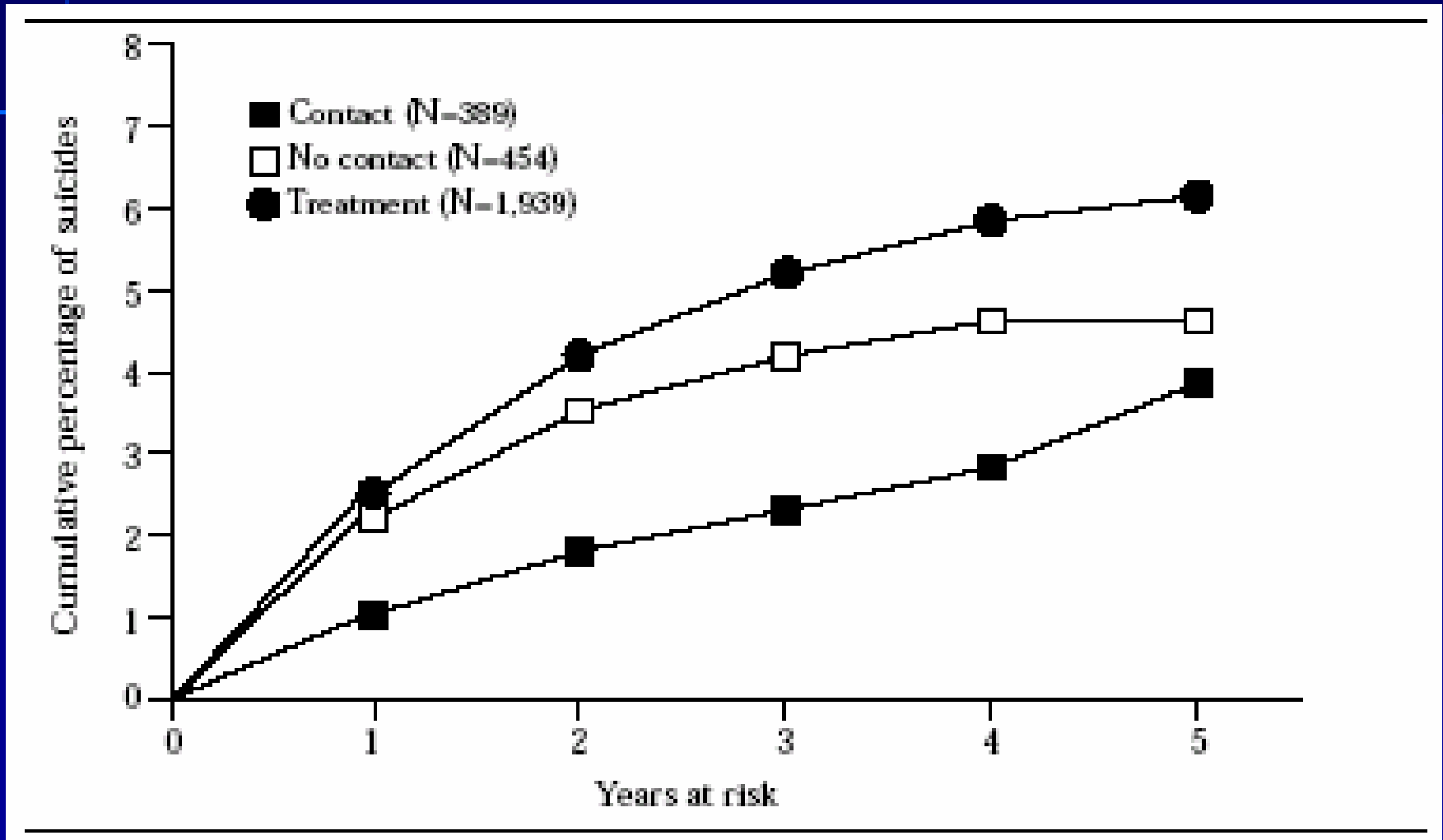


Contact Letter sent every 1-4 months over 5 year period

Dear *Patient's Name*:

"It has been some time since you were here at the hospital, and we hope things are going well for you. If you wish to drop us a note, we would be glad to hear from you."

Cumulative Percentage of Suicides



Challenges for Evidence-Based Interventions

- There is almost **no** evidence from randomized controlled trials that psychosocial interventions actually prevent suicide.
- **Low** base rate problem requires large sample sizes and long-term follow-up

Public Health Approach to Prevention

**Dissemination;
Program Evaluation**

**Community
Implementation**

**Develop & Test
Interventions**

**Identify Causes;
Risk & Protective Factors**

**Suicide
Attempts**

**Define the problem;
Surveillance**



PROBLEM

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RESPONSE

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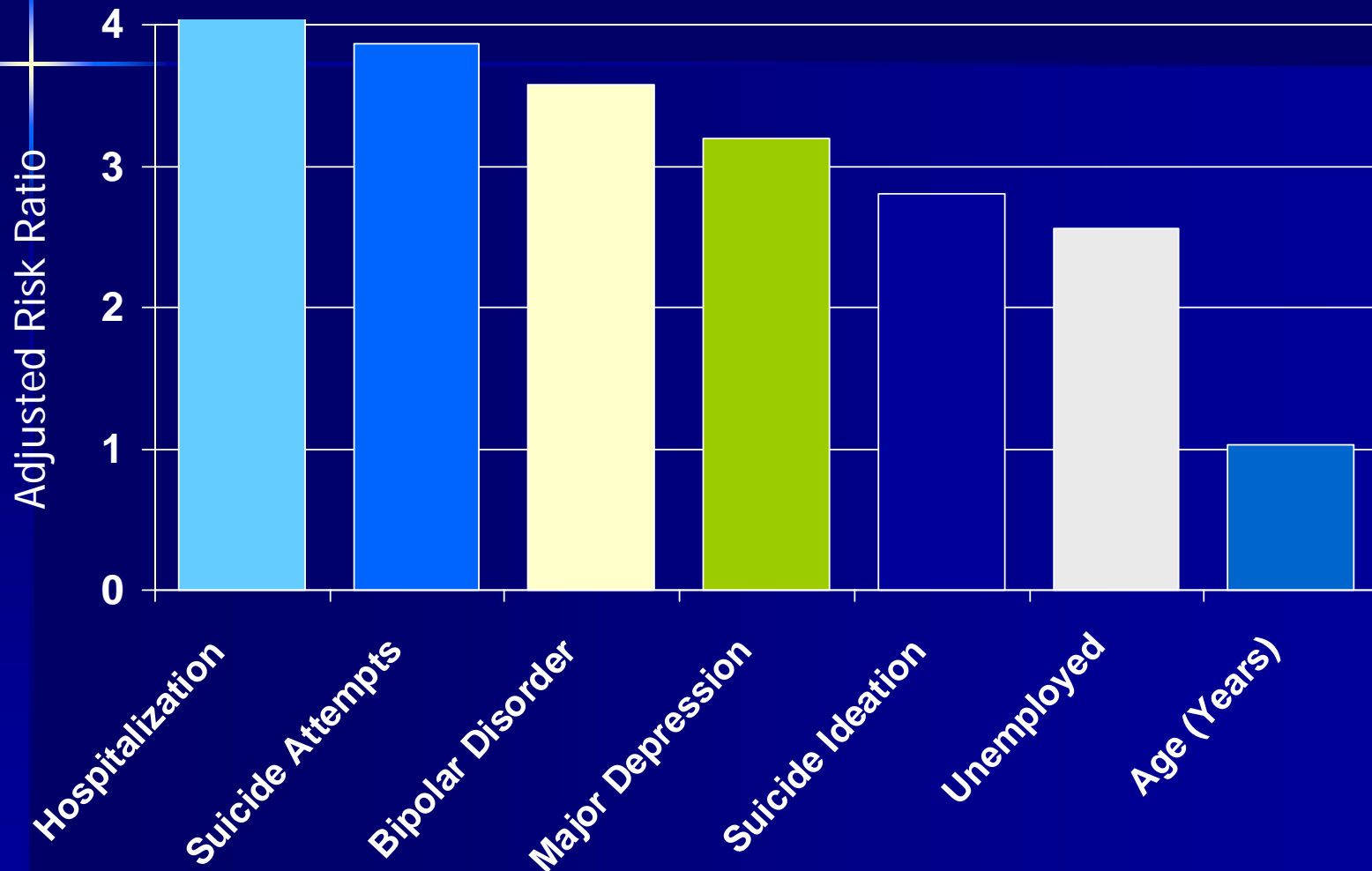
Standardized Mortality Ratios

	SMR	95% CI
Suicide Attempts (overdose)	40.70	37.00 - 44.67
Suicide Attempts (any method)	38.36	34.03 - 43.08
Major Depressive Disorder	20.35	18.27 - 22.59
Substance Use Disorder (mixed)	19.23	16.12 - 22.76
Brief Reactive Psychosis	15.37	14.47 - 16.31
Bipolar Disorder	15.05	12.25 - 18.44
Dysthymia	12.12	11.50 - 12.77
Schizophrenia	8.45	7.98 - 8.95
Alcohol Use Disorder	5.86	5.41 - 6.33

Risk Factors for Completed Suicide

- Sampled 6,891 psychiatric outpatients
- Conducted National Death Index search
- Identified 49 suicide cases
- All patients received structured interviews and standardized assessment measures

Adjusted Risk Ratios for Adult Psychiatric Outpatients



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PROBLEM

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RESPONSE

Successful Psychosocial Interventions for Suicide Attempts

- Intensive Follow-up Treatment
- Interpersonal Psychotherapy
- Dialectical Behavior Therapy
- Cognitive Behavior Therapy

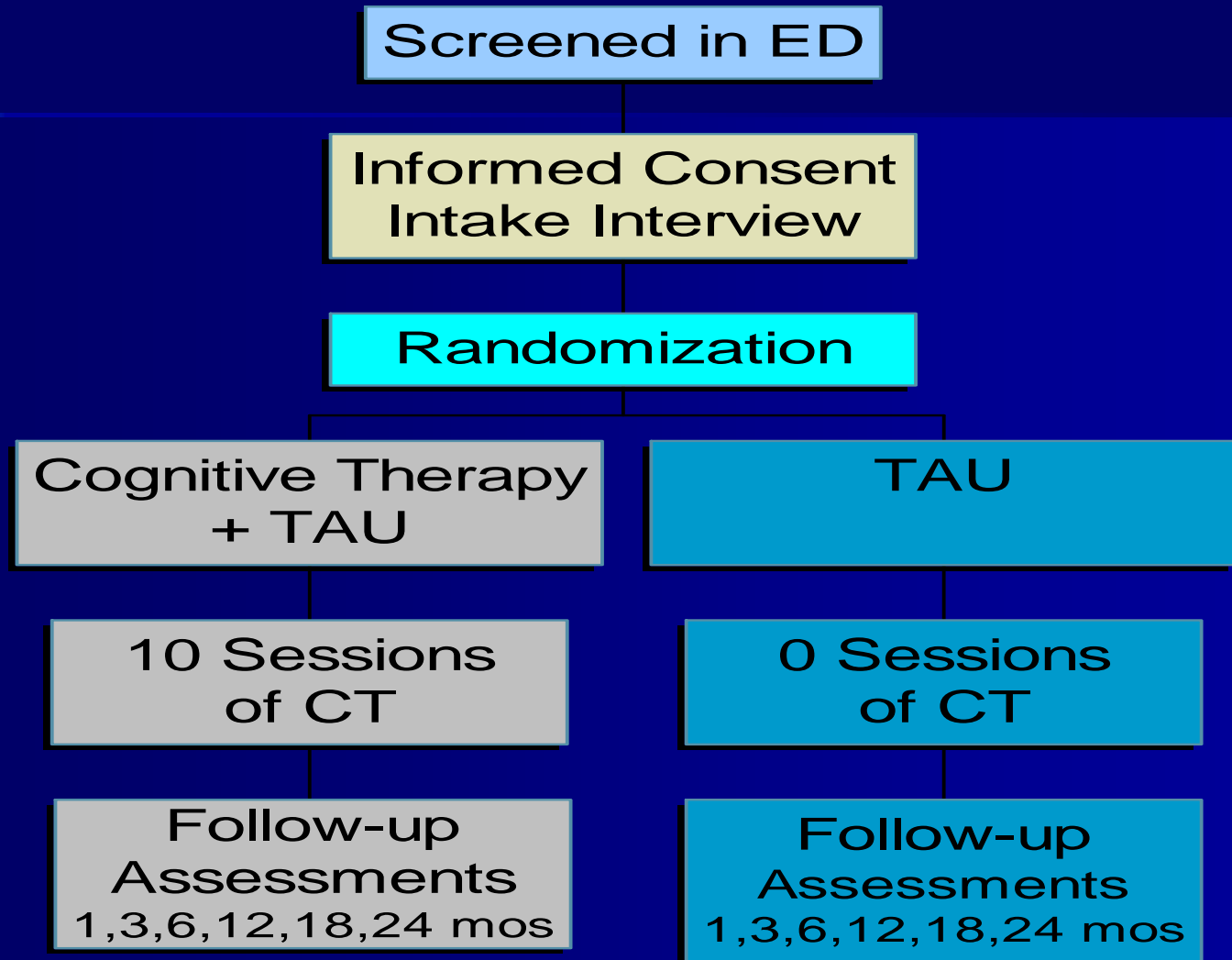
Do psychosocial interventions prevent suicide attempts?

- Very few **randomized controlled trials** of suicidal individuals because:
 1. Reliable and valid measures of suicide behavior are **infrequently** used in clinical trials
 2. Most RCTs for individuals with psychiatric disorders have **excluded** those who are a high risk for suicide
 3. Lack of interest in developing interventions specifically for suicide attempts

Cognitive Therapy for Suicide Attempters: **Specific Aims**

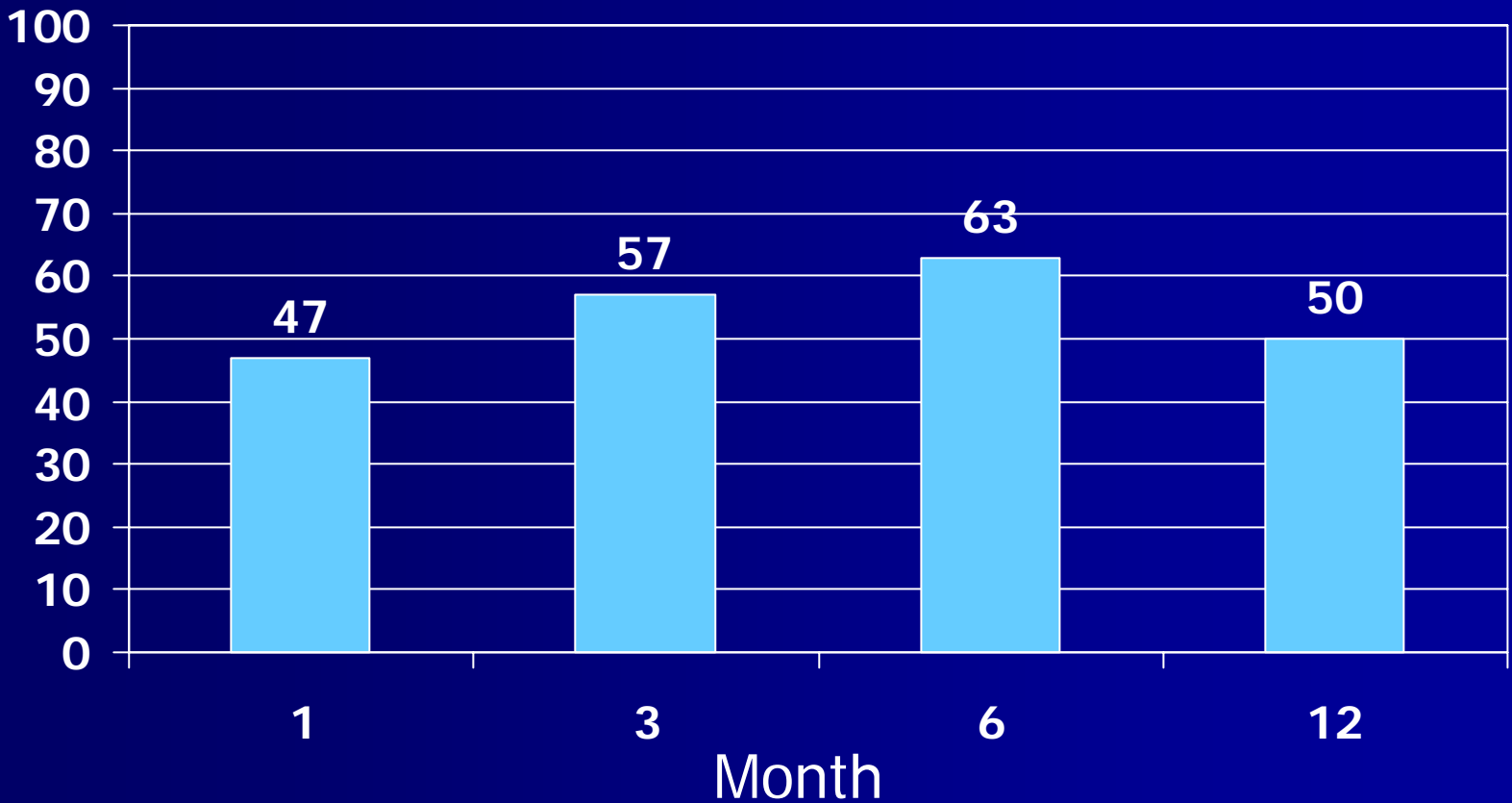
- To determine if a brief cognitive intervention for suicide attempters will be effective for:
 1. Preventing repeat suicide attempts
 2. Reducing the severity of established risk factors
 3. Increasing use of appropriate health services

Design for Study 1



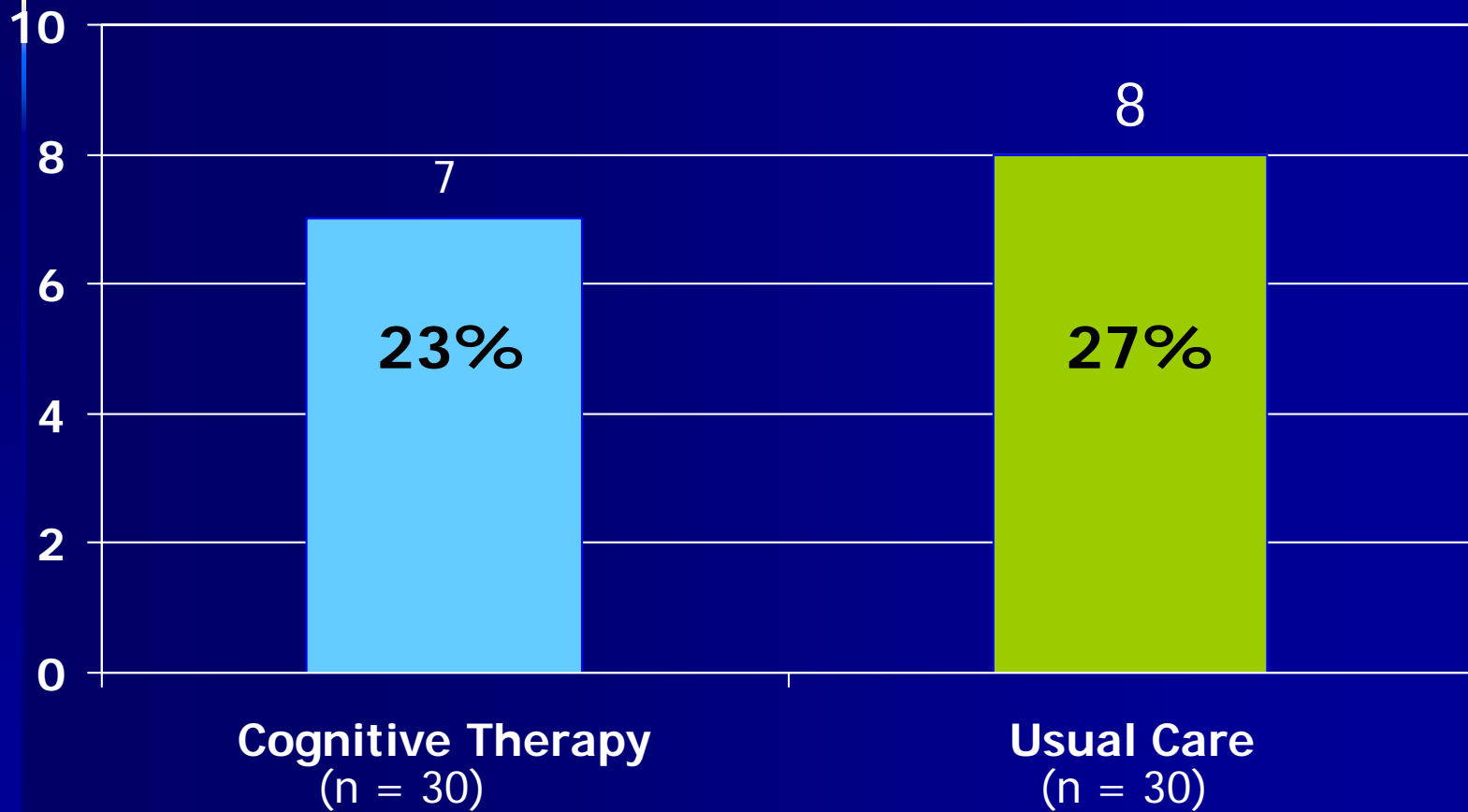
Retention Rates

Study 1 ($n = 60$)



Number of Patients Attempting Suicide

Study 1



Initial Difficulties

Study 1

- **Negative expectations** for therapy and for the health system.
- **Low resources** (no phone, no money for transportation or child care), severe depression, chaotic and transient lifestyles, concerns about food, safety and housing.
- Resulted in **poor** treatment and follow-up compliance.

Protocol Changes

Study 1

Usual Care



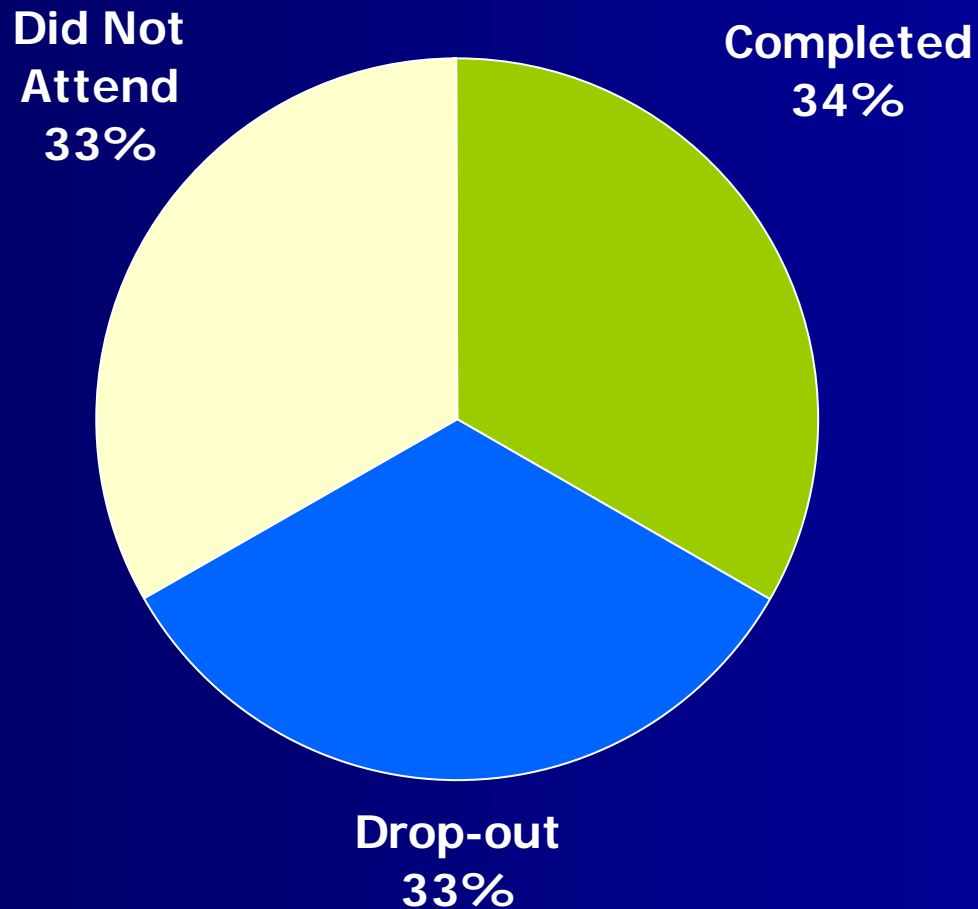
Enhanced Usual Care = Usual Care +
Study Case Management

Enhanced Usual Care: Study Case Manager

1. To form a relationship with the patient; send letters, regular phone calls, etc.
2. To track the patient through the study
3. To coordinate therapy appointments for the patients
4. To provide patients with referrals for psychiatric treatment, addiction treatment, and social services and problem solve with patients to ensure that they follow through with referrals

Therapy Attendance

Study 1



Initial Difficulties

Study 1

The standard model of outpatient psychotherapy (i.e., therapist is available for a motivated client to engage in a treatment that takes place at a scheduled time where it is the patient's responsibility to come to treatment to talk about troubling issues) was **not sufficient or successful** in engaging the majority of these patients.

"Cultural" mismatch between therapy offered and patient resources.

Protocol Changes for Therapists

- Adopt a more **active and directive** role in maintaining contact
- Used more **flexible** schedules
- First session within **24 hours** of intake interview
- Increased contact with patients' family
- Conducted phone sessions when necessary

Public Health Approach to Prevention

**Dissemination;
Program Evaluation**

**Community
Implementation**

Study 2 →

**Develop & Test
Interventions**

**Identify Causes;
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**Define the problem;
Surveillance**

PROBLEM

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Sample Selection Criteria

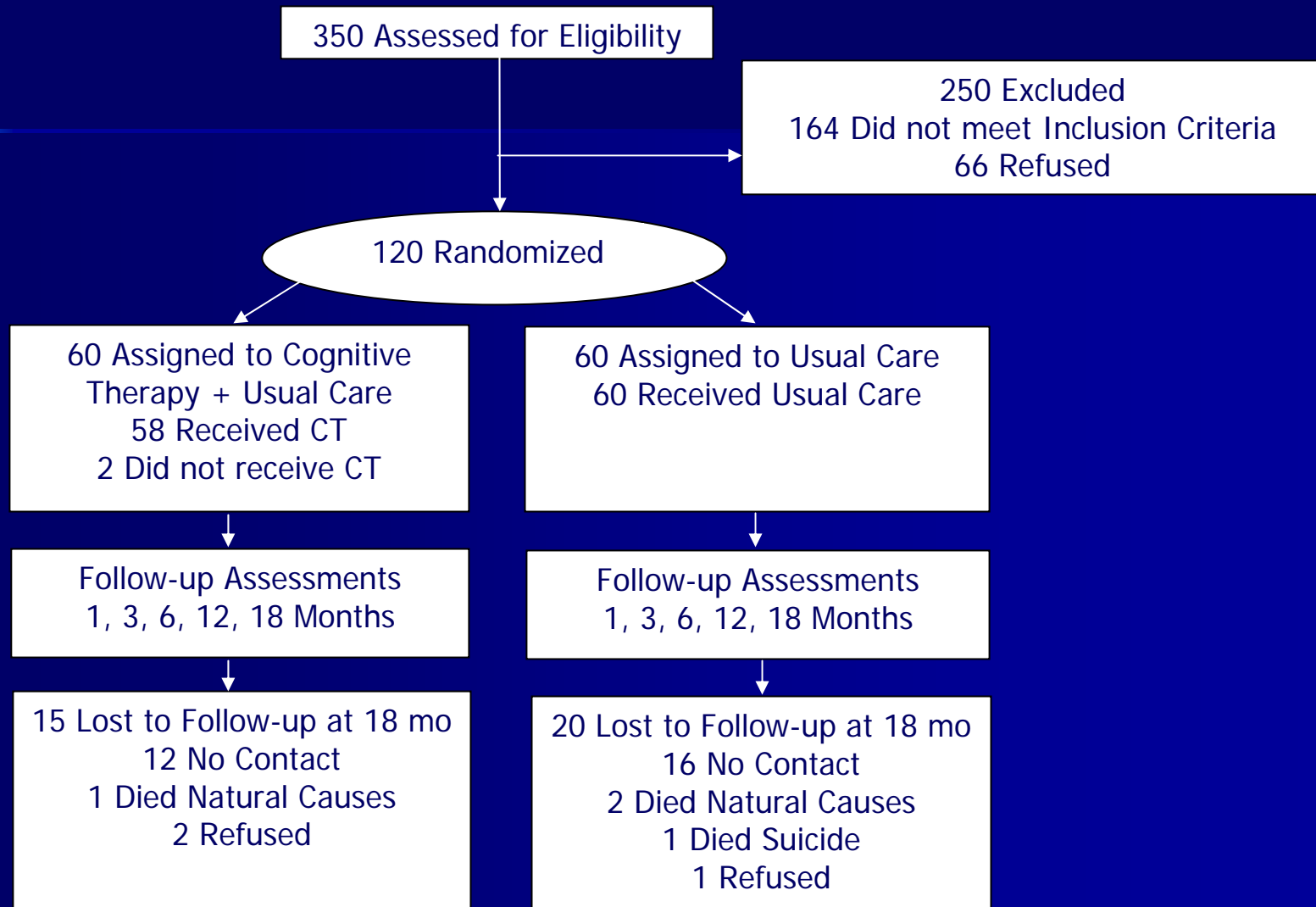
■ Inclusion Criteria

- Attempted suicide **48 hours** prior to evaluation at the ED
- Completed baseline assessment within 3 weeks
- Age 16 or older
- **Two** verifiable contacts
- Provided written informed consent

■ Exclusion Criteria

- Severe medical disorder that would prevent participation in psychotherapy

Participant Flow



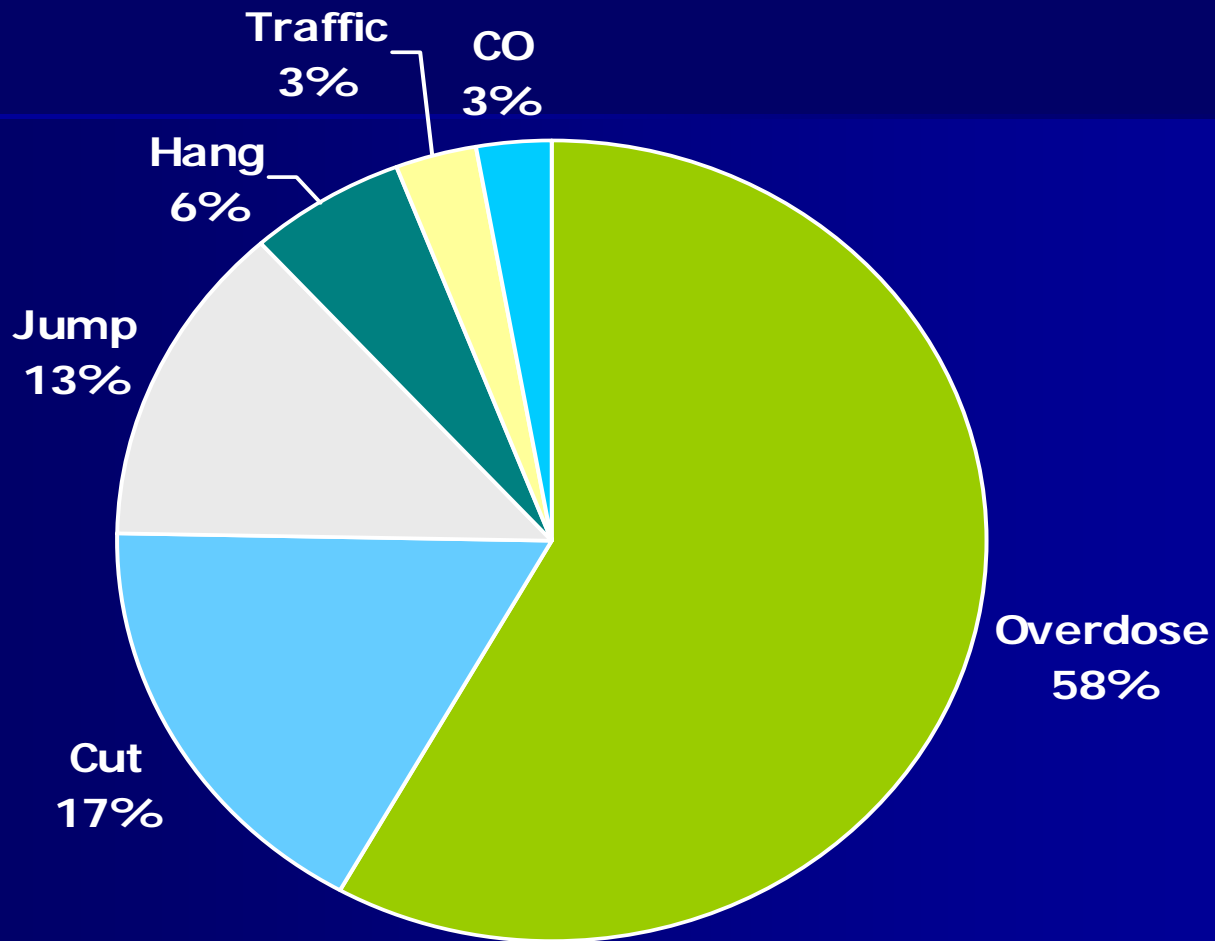
Demographics

- Age: 33.2 years (SD=9.7, 18 to 66 years)
- Female: 61%
- Marital Status
 - 64% Single
 - 18% Divorced or Separated
 - 7% Widowed
 - 11% Married
- 66% Unemployed or Disabled
- 60% Black, 30% White, 10% Other race

Psychiatric Diagnoses

- 77% Major Depressive Disorder
- 68% Substance Use Disorder
- 85% More than 1 psychiatric disorder

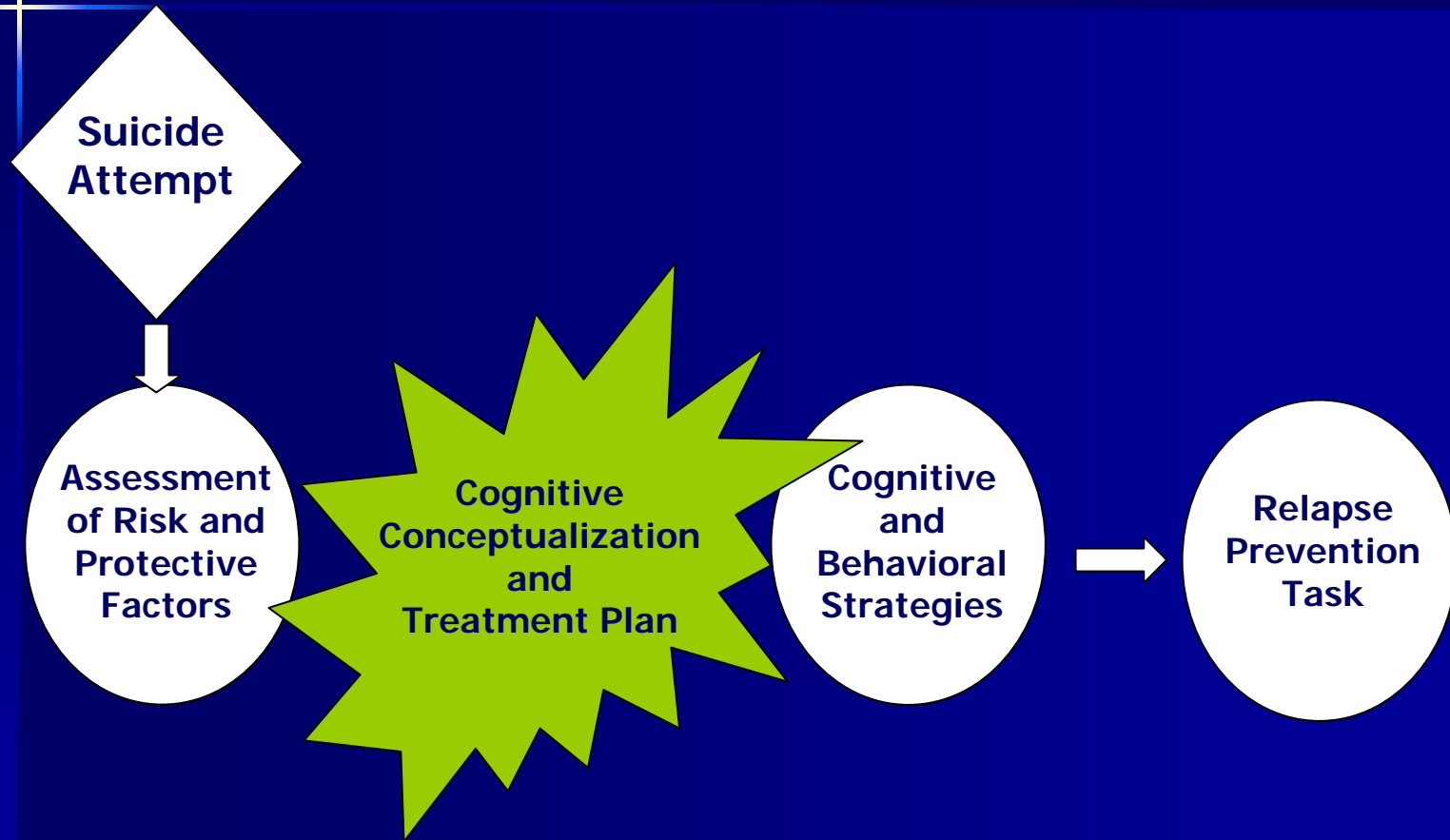
Method of Suicide Attempt



Targeted Cognitive Therapy



Overview of Treatment



Initial Sessions

1. Socializing patients into the structure and process of therapy
2. Engaging the patient in treatment
3. Conducting a suicide risk assessment
4. Developing a safety plan
5. Obtaining a narrative description of the attempt
6. Conveying a sense of hope

Treatment Engagement

- General Cognitive Therapy Skills
 - Understanding the patient's "internal reality" and empathizing with the patient's experiences
 - Collaborating with the patient as much as possible so that they function as a team
 - Eliciting and responding to feedback
 - Displaying optimal levels of warmth, genuineness, concern, confidence and professionalism

Safety Plan

- Hierarchically-arranged written list of coping strategies for use during a suicidal crisis
- Collaborative process between the provider and the patient
- Brief, easy to read format and uses the patients' own words
- May be modified throughout treatment as new skills are learned

Safety Plan: 4 Steps

- (1) The recognition of suicidal thoughts or other thoughts, feelings or behaviors that lead to suicidal thoughts
- (2) Coping strategies that could be employed without the assistance of another person
- (3) Information for reaching out to friends or family members
- (4) Information for contacting professionals
1-800-273-TALK (Suicide Prevention Hotline)

SAFETY PLAN *TO-GO*

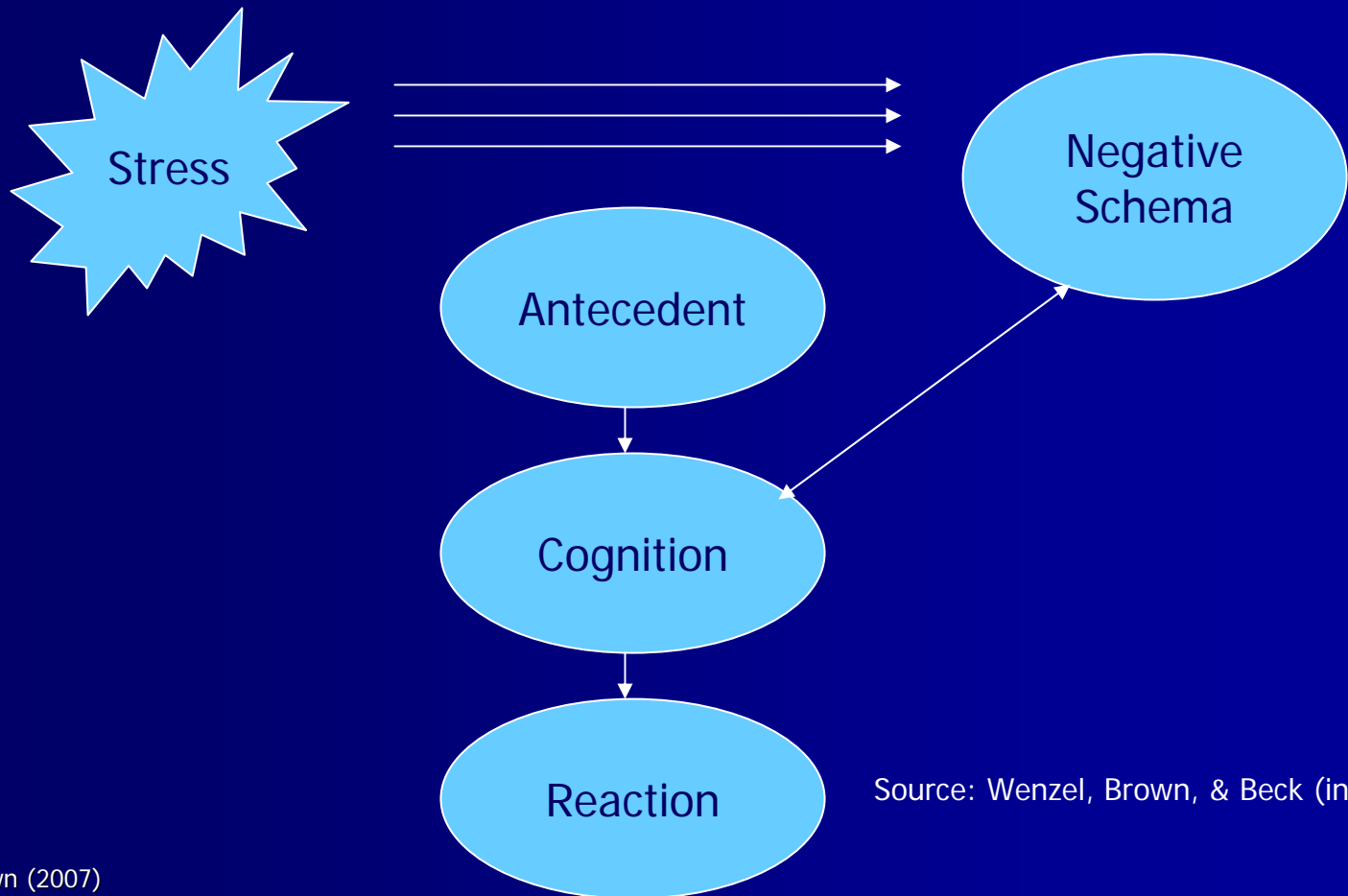
Warning Signs:

Coping Strategies:

Family/Friends:

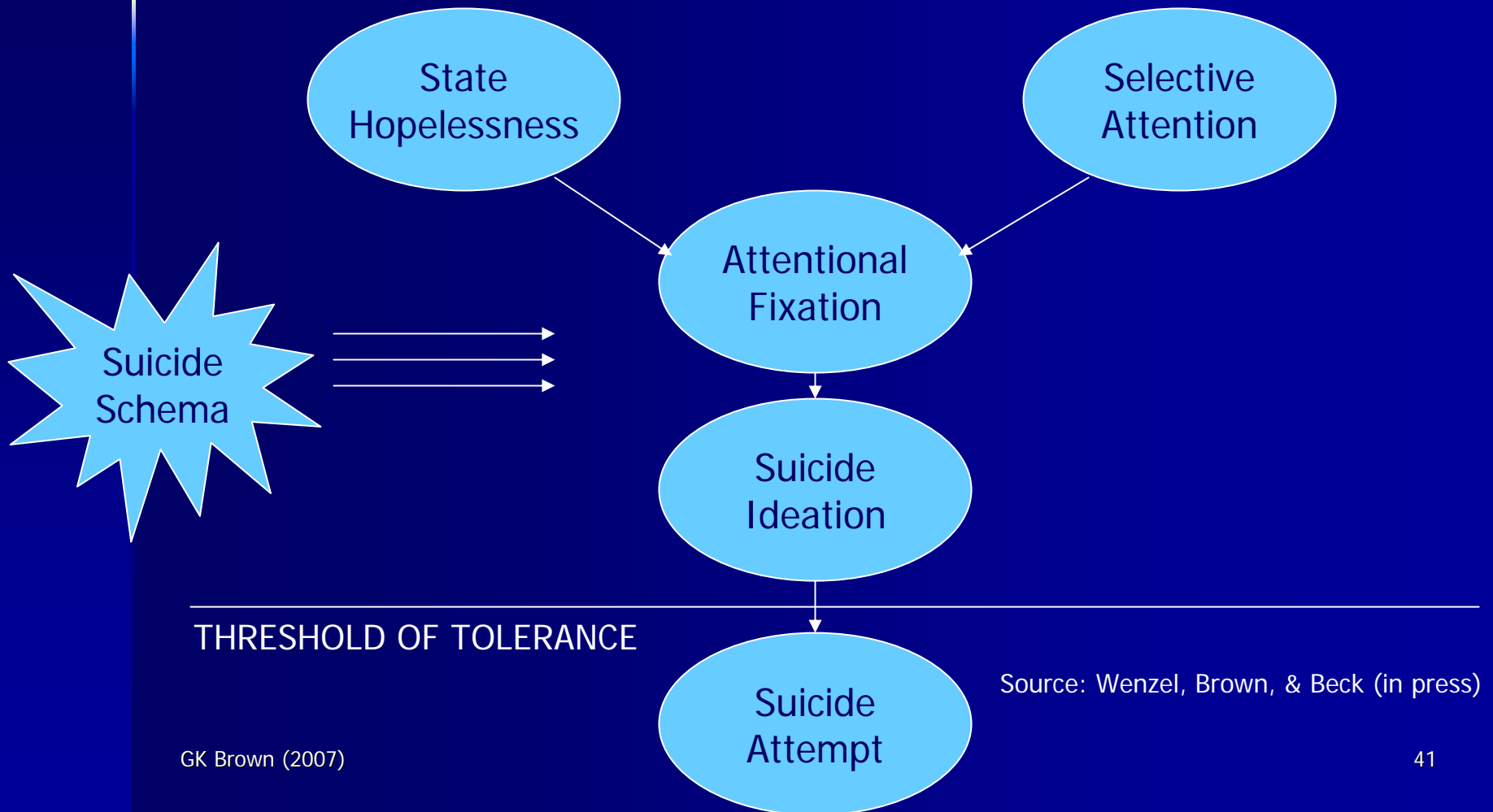
Emergency Contacts:

General Cognitive Model

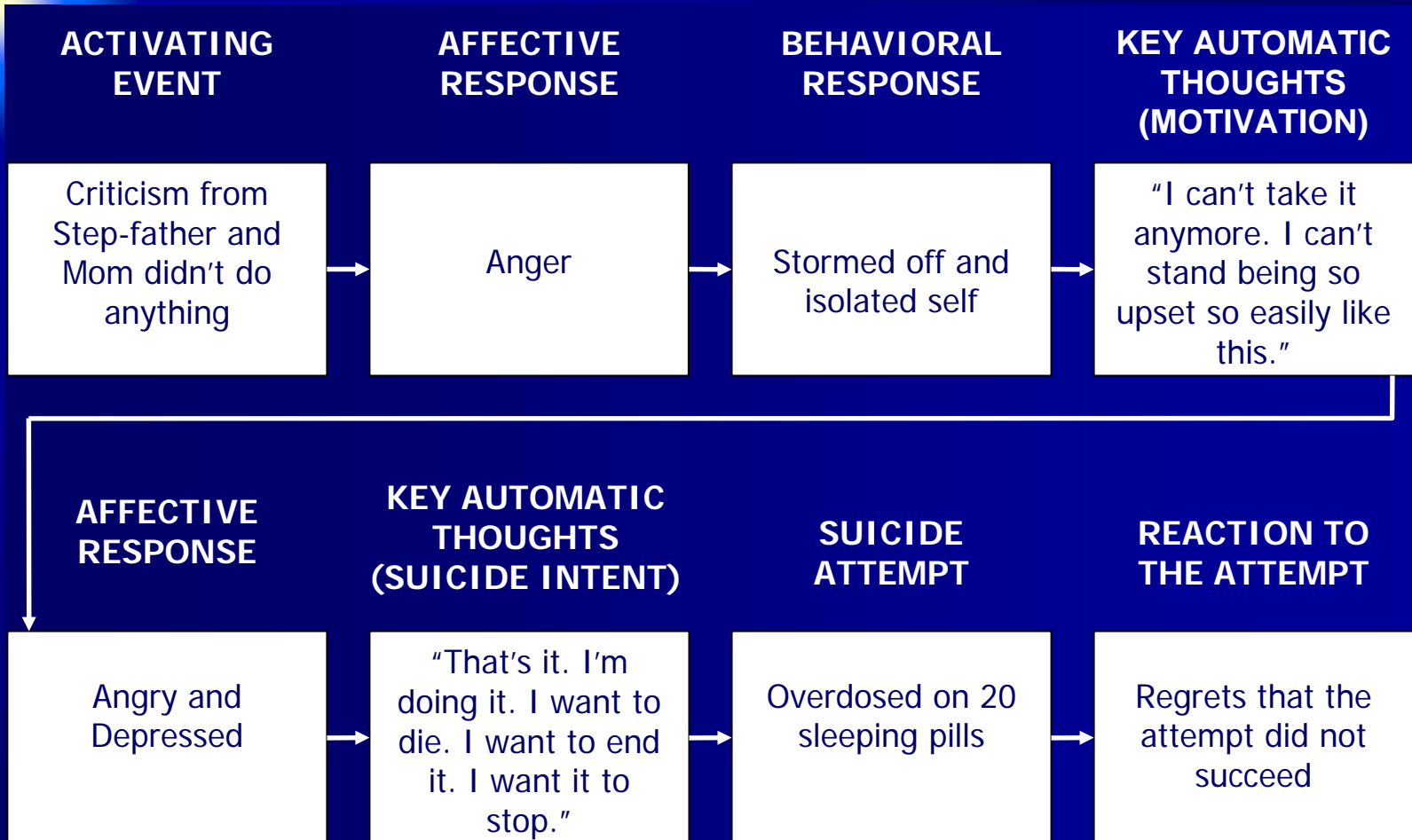


Source: Wenzel, Brown, & Beck (in press)

Cognitive Model of Crises



Timeline of Suicide Attempt



Cognitive Case Conceptualization

**DISPOSITIONAL
VULNERABILITY
FACTOR**

Problem Solving
Deficits

Recurrent Depression
Father Abandoned
Negligent Mother

**EARLY
EXPERIENCES**

CORE BELIEFS

"I'm worthless"
"Life has no meaning"

**KEY AUTOMATIC
THOUGHTS**

"I can't take it anymore"
"Things will never change"

**SUICIDE-RELEVANT
COGNITIVE
PROCESSES**

Attentional Fixation
Inability to Generate
Solution Other Than Suicide

Cognitive Coping Strategies

- Modifying Suicide-Relevant Beliefs
 - Guided Discovery, Future Time-Imaging
- Enhancing Problem Solving Skills
- Identifying Reasons for Living
- Developing Coping Cards
- Reducing Impulsivity

Reasons for Living

- Identify Reasons for Living
- Review Advantages & Disadvantages of Living
- Construct a **Hope Box** or Survivor Kit
 - Pictures
 - Letters
 - Poetry
 - Prayer Card
 - Coping Cards



Coping Card: Example

- *Automatic Thought:* "There's no way out of this."
- *Response:* Things *are* really tough right now, but that doesn't mean there's no way out. I've been through a lot of hard times before, and I've always made it through. I have a plan for applying for some jobs, and I can use the money I earn to get my own apartment.

Behavioral Strategies

- Increasing Pleasurable Activities
- Increasing Social Support
 - Attending to Existing Relationships
 - Building New Relationships
 - Modifying Reactions Toward Others
 - Utilizing Family Support
- Increasing Compliance with Other Services

Affective Coping Strategies

- Physical Self-Soothing
 - Exercise, Muscle Relaxation
- Cognitive Self-Soothing
 - Distraction
- Sensory Self-Soothing
 - Engaging Senses (e.g., Touch, Sound, Smell)

Relapse Prevention Task

- Explain rationale, describe exercise and obtain informed consent
- **Three Steps:**
 1. Imagine chain of events, thoughts, behaviors and feelings leading to attempt
 2. Imagine chain of events and respond to maladaptive thoughts and images
 3. Imagine future scenario likely to trigger a suicidal reaction
- **Debriefing**

Later Sessions

- Anticipating Lapses
- Termination
 - Review of Treatment
 - Consolidation of Skills
 - Appropriate Referrals
- Continued Treatment (if necessary)
- Booster Sessions (if necessary)

Cognitive Therapy for Adolescent Attempters

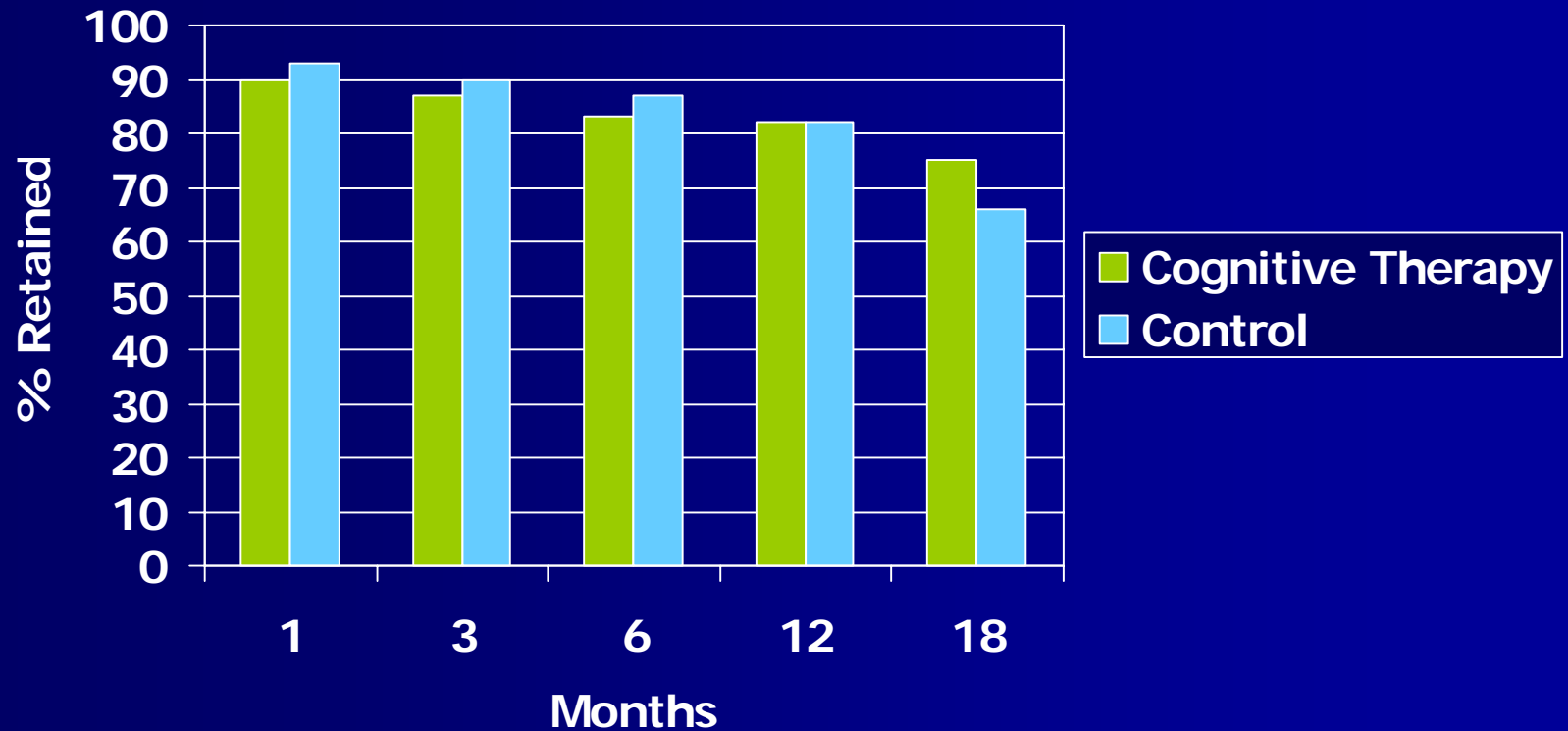
Same as for adult treatment except:

1. More emphasis on rapport building
2. More emphasis on understanding the motivation for the attempt
3. More emphasis on behavioral skills
4. Adapting specific interventions:
 - Affect Coping Skills (Mood thermometer)
 - Safety Plan for Family Members
 - Problem-Solving Letters
 - Hope Kit

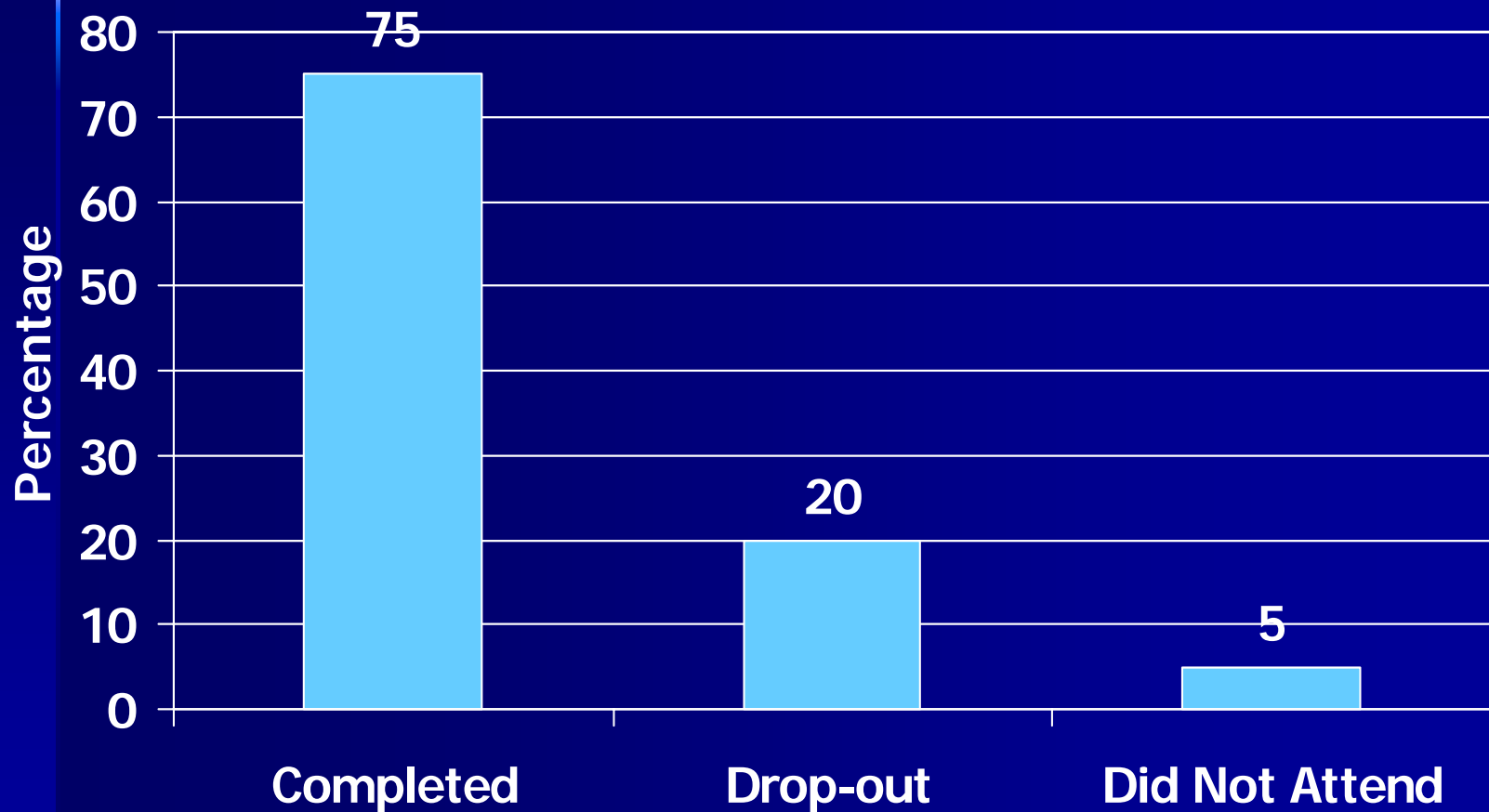
Cognitive Therapy for Adolescent Attempters

- Family involvement is greater when family dysfunction is a **precursor** to the attempt
- Strengthen family communication and problem-solving
- Anger management for family
- Improve contingency management
- Modify unrealistic expectations and improved positive reinforcement

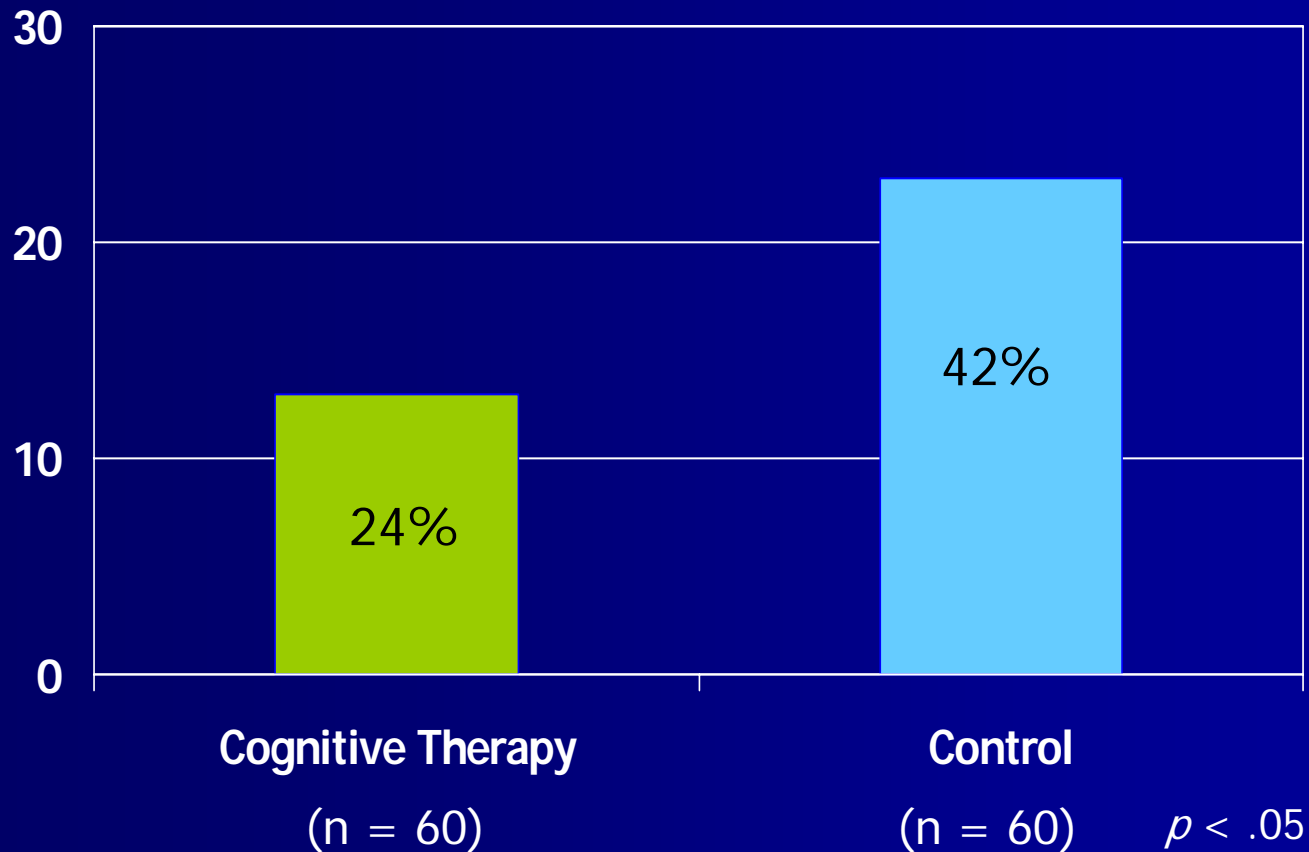
Retention Rates



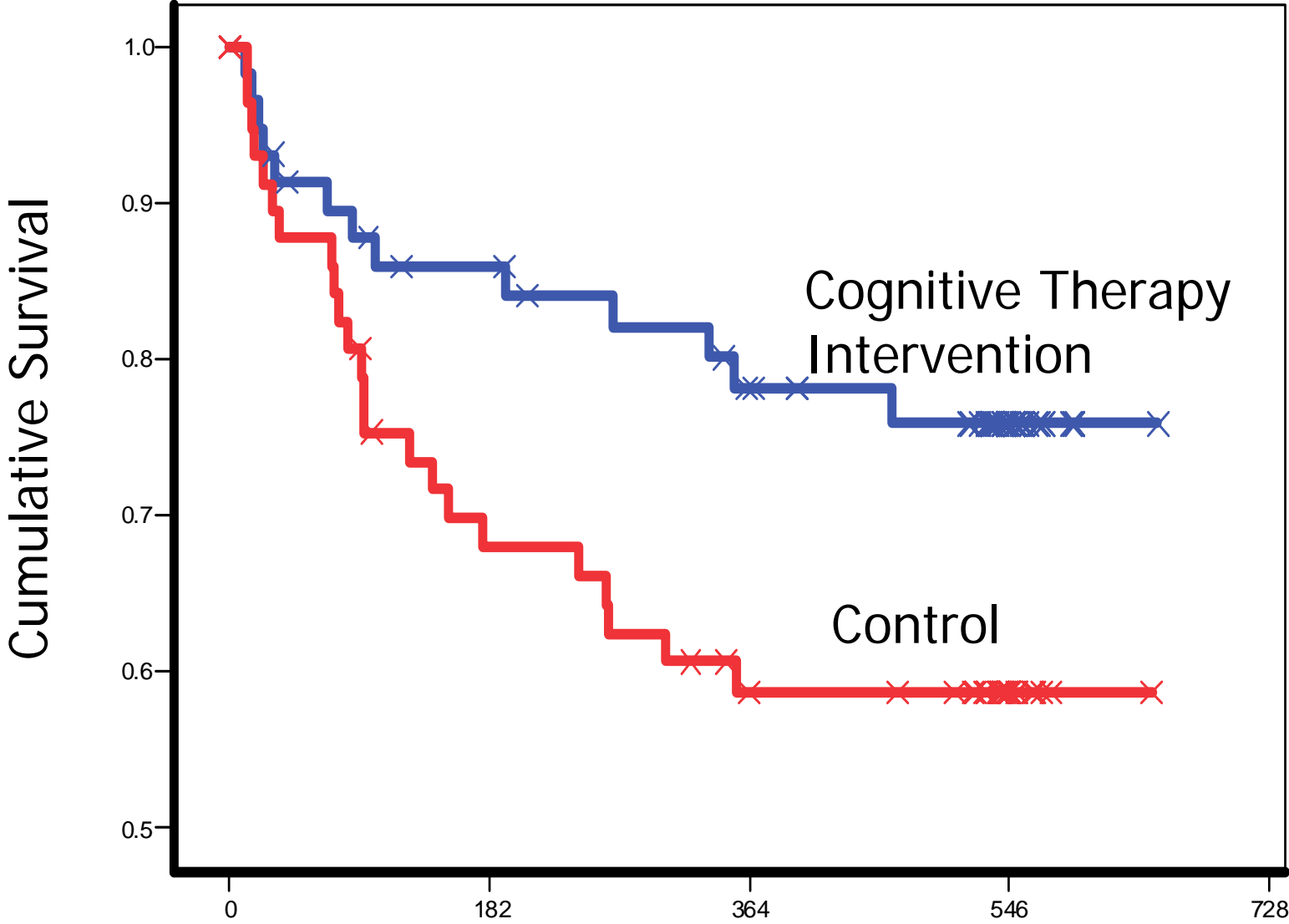
Therapy Attendance Rates



Number of Patients with Repeat Suicide Attempts



Survival Functions for Repeat Suicide Attempt by Study Condition

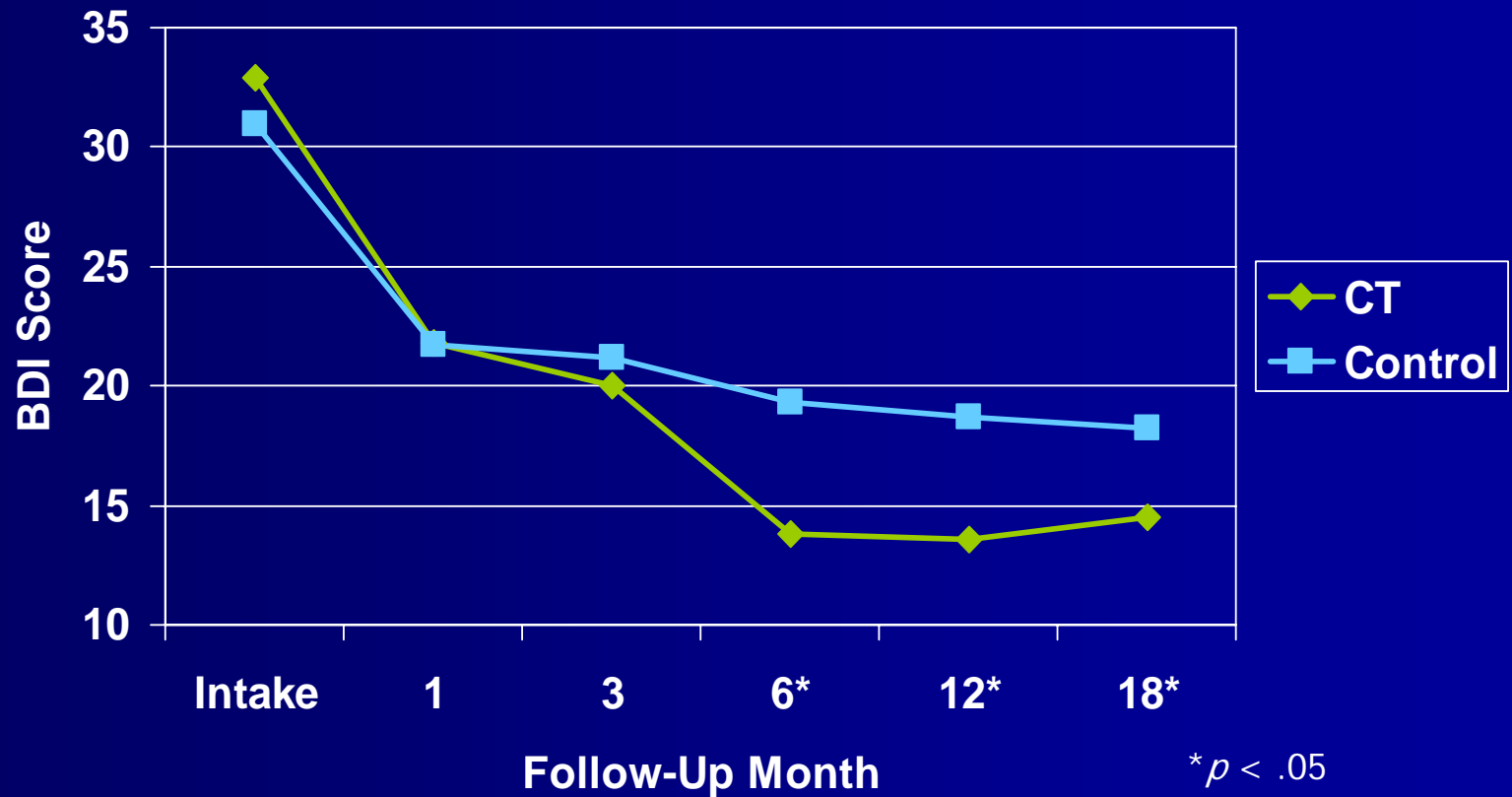


Source: Brown, G. K. et al. (2005). *JAMA*, 294, 563-370.

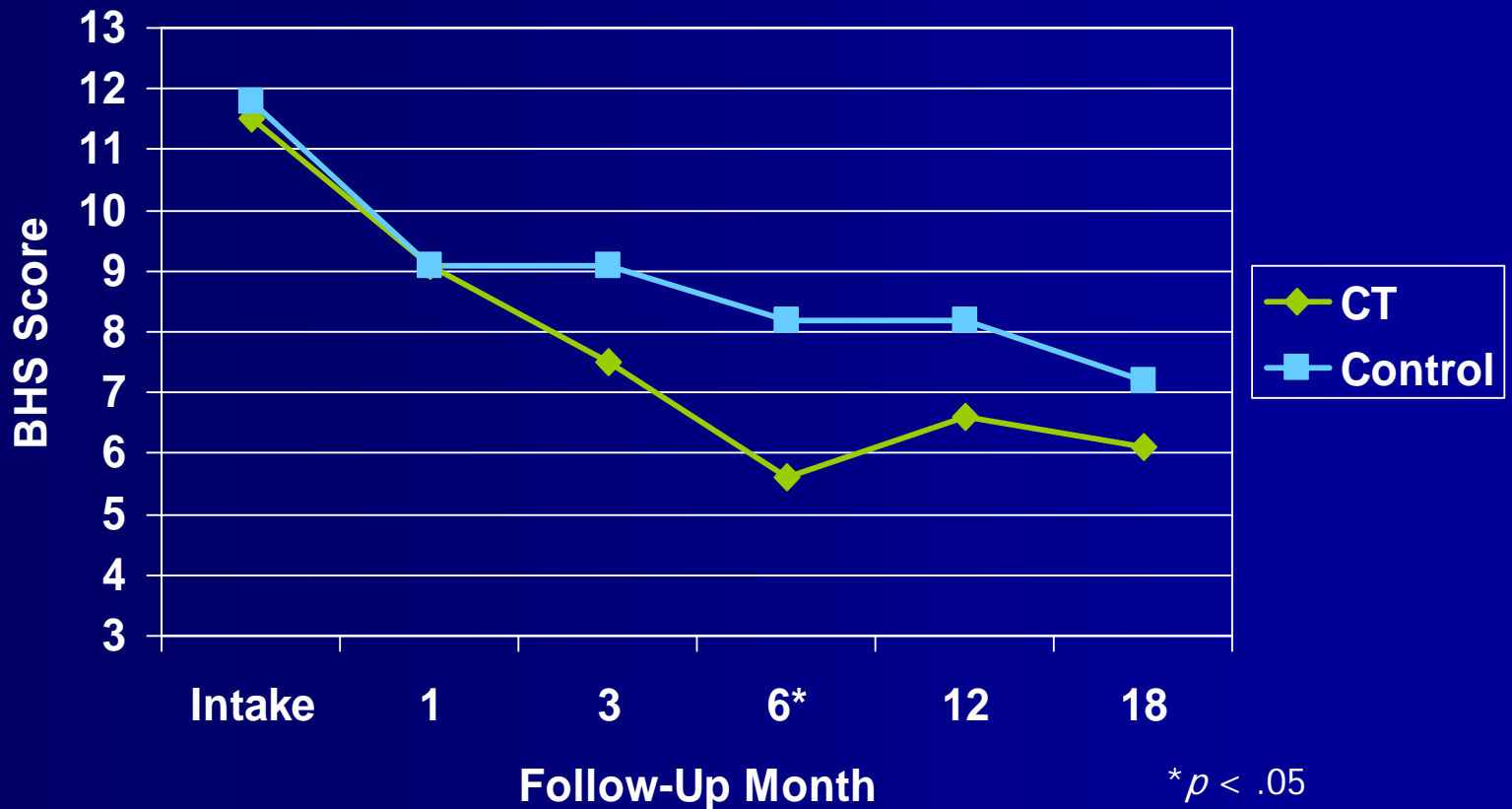
Days

* $p < .05$

Beck Depression Inventory-II

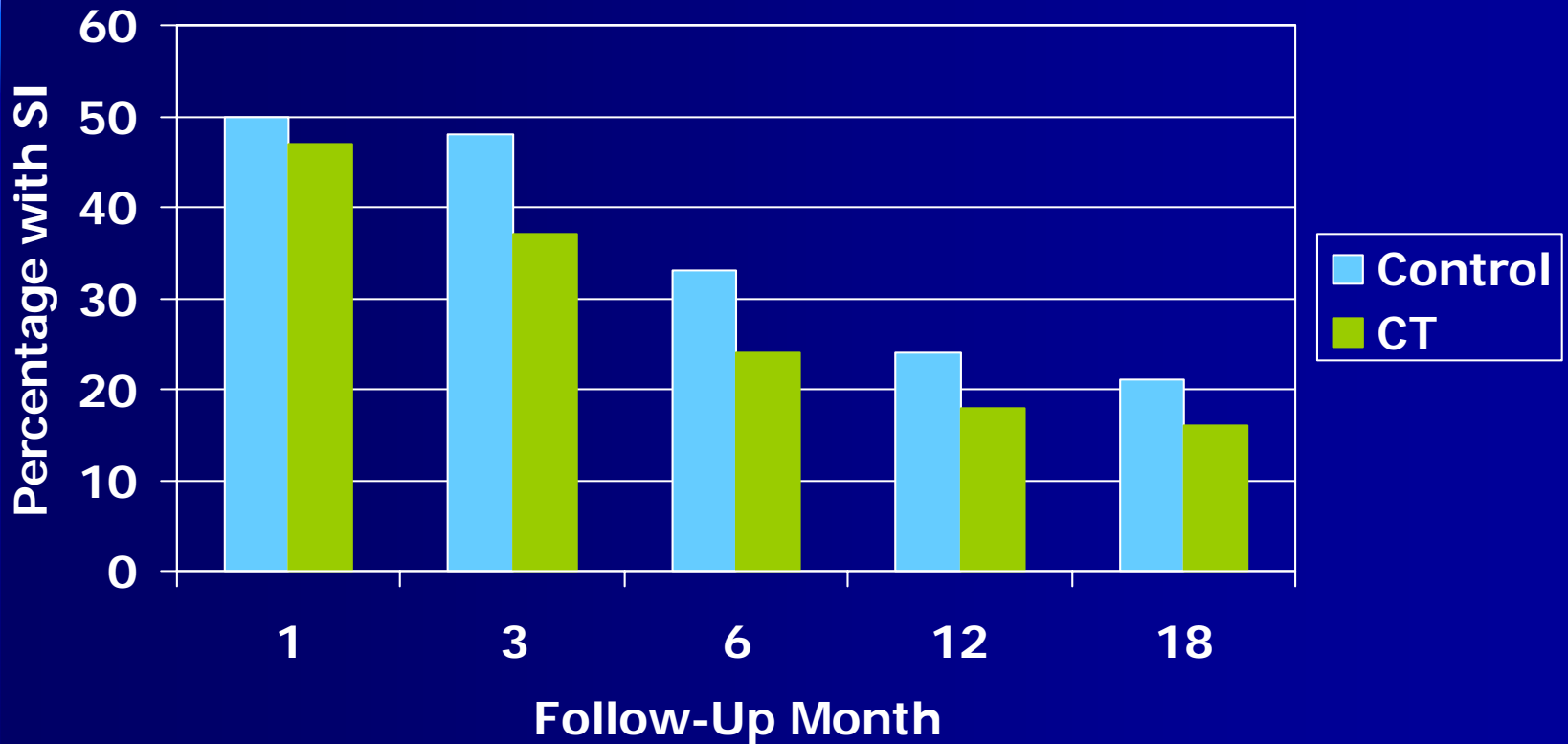


Beck Hopelessness Scale



Suicide Ideation Rates

Scale for Suicide Ideation Scores > 0



Public Health Approach to Prevention

**Dissemination;
Program Evaluation**

Study 3 →

**Community
Implementation**

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**Define the problem;
Surveillance**

PROBLEM

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RESPONSE

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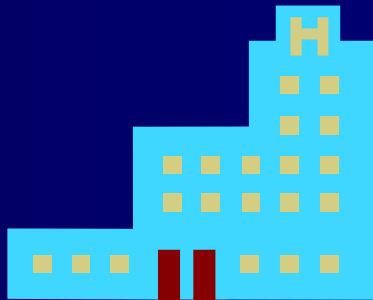
Cognitive Therapy for Suicide Attempters

- To determine if a brief cognitive intervention for suicide attempters will be effective in **community mental health centers** for:
 1. Prevention of repeat suicide attempts
 2. Reducing the severity of established risk factors
 3. Increasing use of appropriate health services

Methodological Challenges

Study 3

?



Methodological Challenges

Study 2 Therapists	Study 3 Community Therapists
<ul style="list-style-type: none">• Available to visit patient while in the hospital• Offer flexible “same day” appointments• Office located in same vicinity as hospital	<ul style="list-style-type: none">• Not available to visit patient while in the hospital• Offer appointments a week or so later• Office located farther away

Psychoeducation Session

- Engage and Establish Rapport
- Rationale for treatment and the patient's role in treatment
 - Rationale and Goals for Therapy
 - Examples of "Good" Clinician and Patient Behaviors
- Potential barriers to treatment
 - Lack of resources
 - Lack of organizational skills
 - Negative attitudes toward treatment

Therapist Recruitment and Training

Recruitment:

- 18 Therapists were recruited from 4 Community Mental Health Centers

Training:

- Didactic Workshop (16 hours) in Study Protocol
- Bi-weekly Group Supervision
- Individual and Phone Consultation (as needed)

Reasons for Community Therapist Drop-out

- High Turnover Rates
- High Caseloads
- Feeling Overwhelmed
- Openness to Standardized Protocol

Strategies to Prevent Therapist Drop-out

- Determine how suicidal patients are managed at each community health center and adapt the protocol accordingly
- Provide more intensive training by rating audio tapes of therapy sessions
- Provide more emotional support to therapists
- Ongoing discussion about differences between our protocol and "typical" therapy
- Encourage therapists to contribute to adaptations of the therapy protocol

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RESPONSE

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Addressing Limitations in Study 3

- Implement a same day/next day scheduling for session 1 (Immediate engagement)
- Intake will take place at agency
- More naturalistic tracking of patients
- Effort to place patients in therapy closer to home

Dissemination Goals

- Assess the feasibility of agency-wide training and implementation
- Determine the factors that facilitate and impede the sustained adoption of CT in community-based agencies
- Learn how and why CT is adapted in non-research settings

Center for the Treatment and Prevention of Suicide

- Aaron T. Beck, M.D.
- Gregory K. Brown, Ph.D.
- Amy Wenzel, Ph.D.
- Shannon Stirman, Ph.D.
- Sunil Bhar, Ph.D.
- Dara Friedman, Ph.D.
- Paul Grant, Ph.D.
- Dimitri Perivoliotis, Ph.D.