EARLY BRAIN & BIOLOGICAL DEVELOPMENT: A SCIENCE IN SOCIETY SYMPOSIUM

Promoting Youth Well-Being through Psychotherapy:

Redesigning Treatments for Real-World Clinical Care

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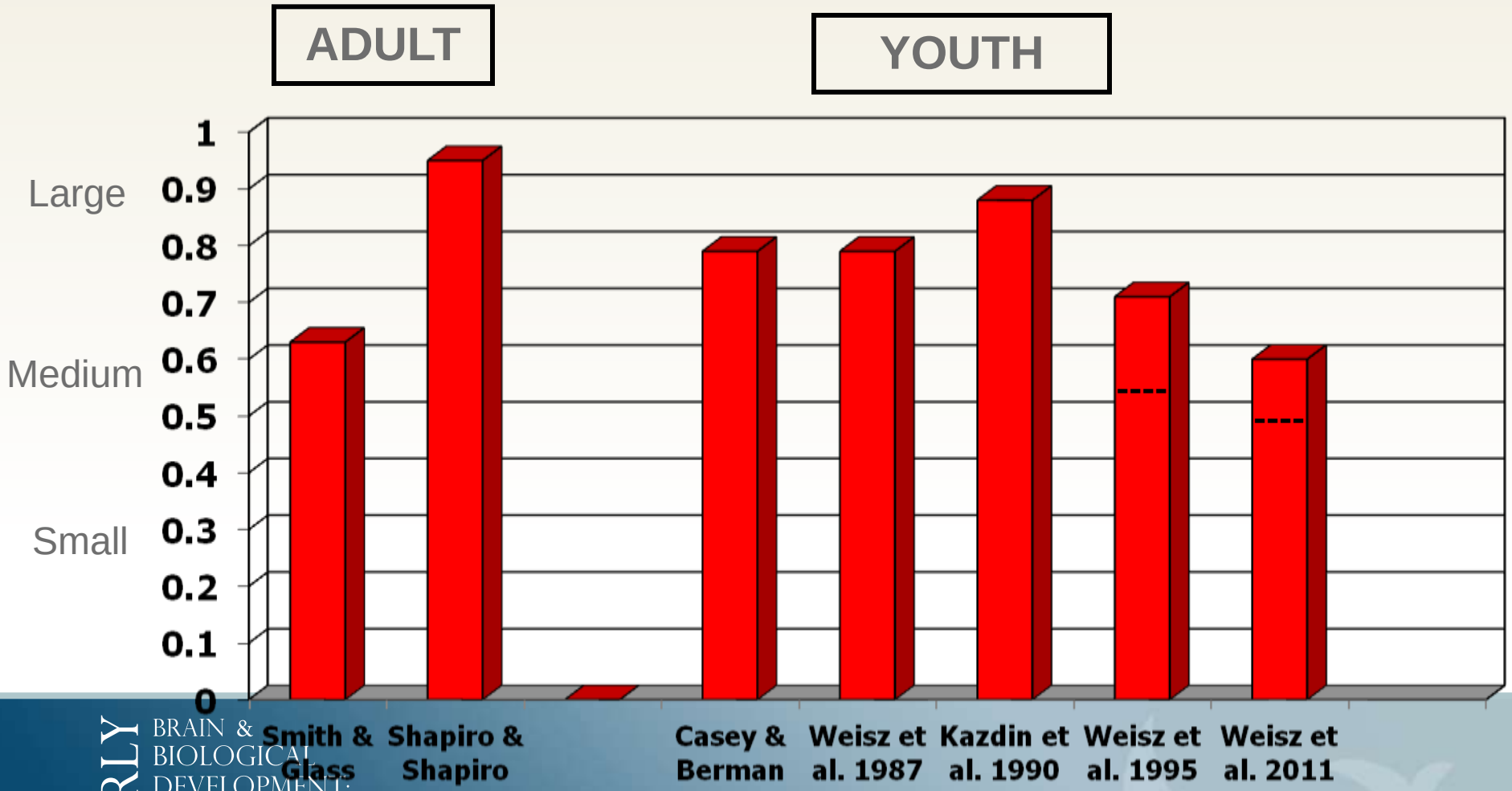
June 1, 2011

Alberta family wellness initiative

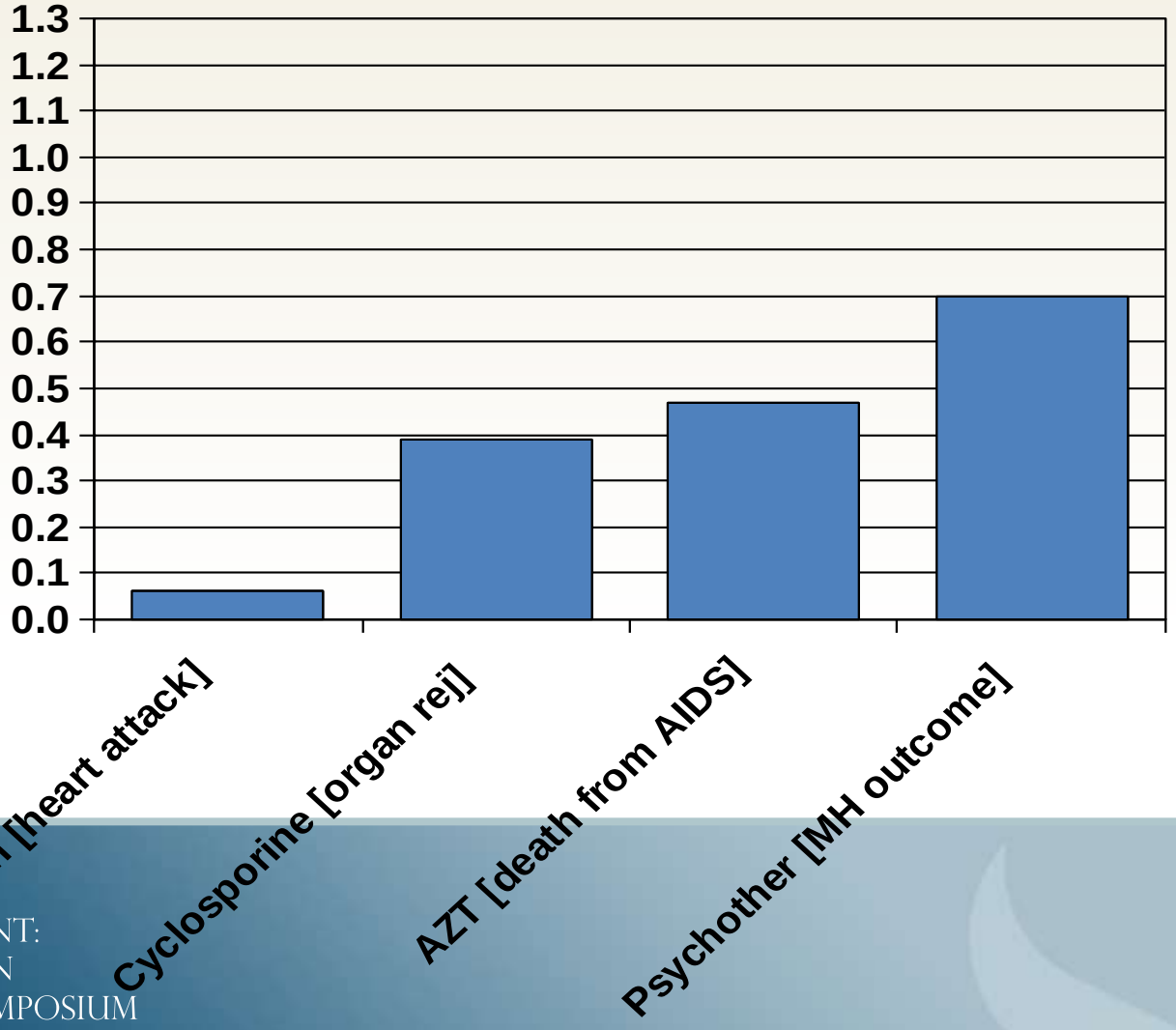
Norlien Foundation

MEAN EFFECT SIZES: ADULT AND YOUTH PSYCHOTHERAPY



Mean Effect Size: Med vs. Psychotherapy

(see R. Rosenthal)



Much of the Support for Evidence-Based Treatments (EBTs)…

…Comes from efficacy trials, using recruited youths, treated by research employees, in lab clinics

Most EBT Studies are Not Clinically Representative

Weisz, Jensen-Doss, & Hawley (2005) Annual Review of Psychology

	Anxiety	Depression	ADHD	Conduct	All studies
How YOUTHS were enrolled in the study					
Treatment-seeking, clinic-referred	3.66	16.67	12.50	19.79	**12.71%**
THERAPISTS who delivered the treatment					
With any practicing clinicians	1.22	55.56	10.00	30.21	**18.64%**
SETTINGS where treatment took place					
Clinical service settings	2.44	5.56	0	7.29	**4.24%**
Representativeness sum (youths, therapists and settings)					
Reporting no representativeness factors	92.68	38.89	77.50	55.21	70.76
Reporting one representativeness factor	7.32	50.00	22.50	34.38	24.15
Reporting two representativeness factors	0	5.56	0	8.33	3.81
YOUTHS, THERAPISTS & SETTING	**0**	**5.56**	**0**	**2.08**	**1.27%**

*All values are noted in percentages

Most EBT Studies Can't Tell Us Whether EBTs > Usual Clinical Care

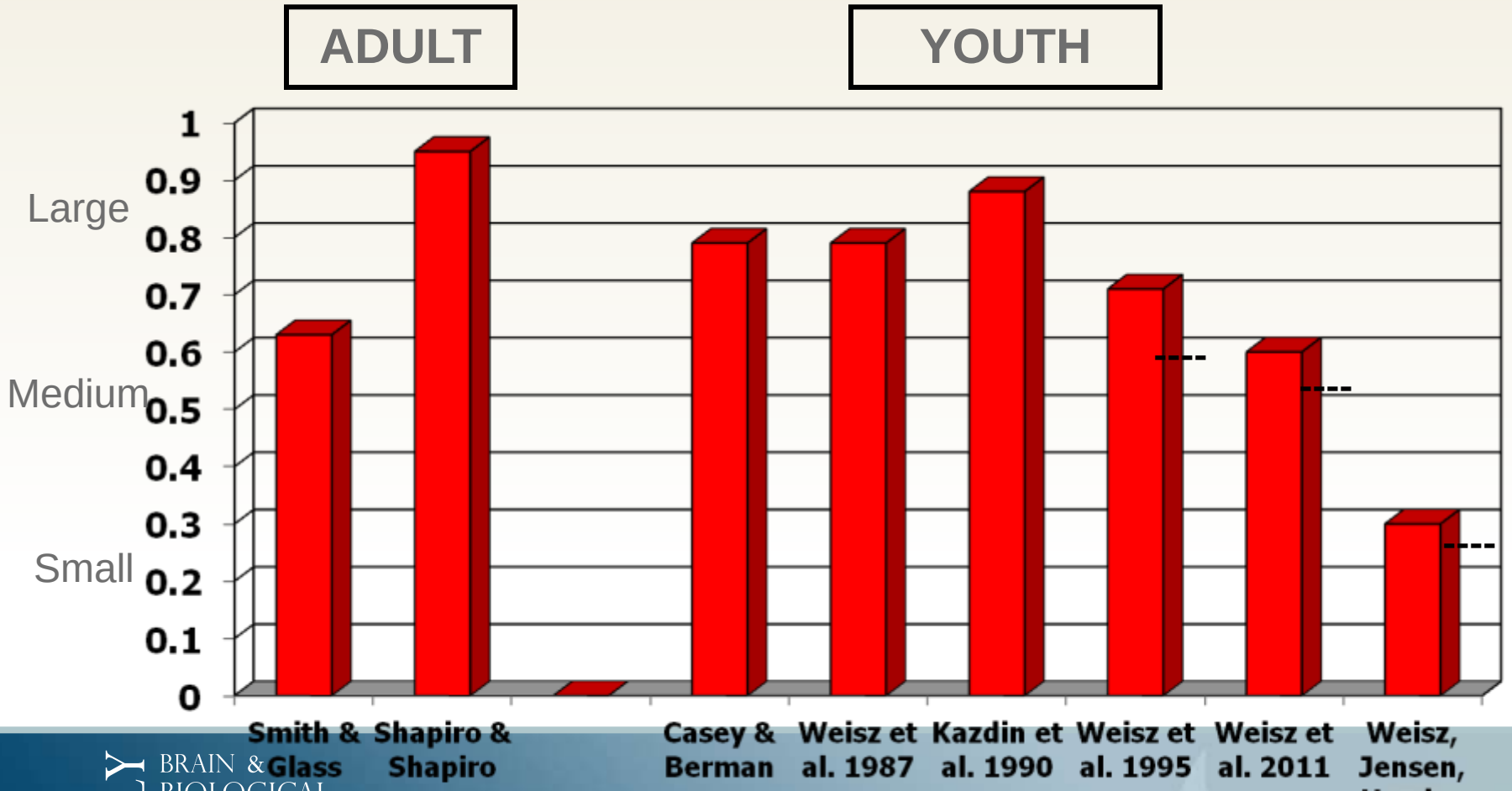
Weisz, Jensen-Doss, & Hawley (2005) Annual Review of Psychology

	Anxiety	Depression	ADHD	Conduct	All Studies
Mean sample size of treatment groups	18.23	30.41	12.38	26.31	21.95
Mean sample size Of control groups	16.78	31.41	11.66	24.36	20.62
Types of control groups					
Studies using no treatment/waitlist	64.63	77.78	42.50	64.58	61.86
Studies using attention/placebo	39.02	27.78	70.00	29.17	39.41
Studies using medication placebo	0	0	0	0	0
Studies using usual care*	**4.88**	**0**	**0**	**14.58**	**7.63**

*Even these EBT vs. UC studies are not so clinically representative (e.g., used specially selected therapists, hired & paid by the researchers), but their findings are revealing, nonetheless… **We identified 32 RCTs comparing EBTs to UC →**

MEAN EFFECT SIZES adding EBT vs. UC studies

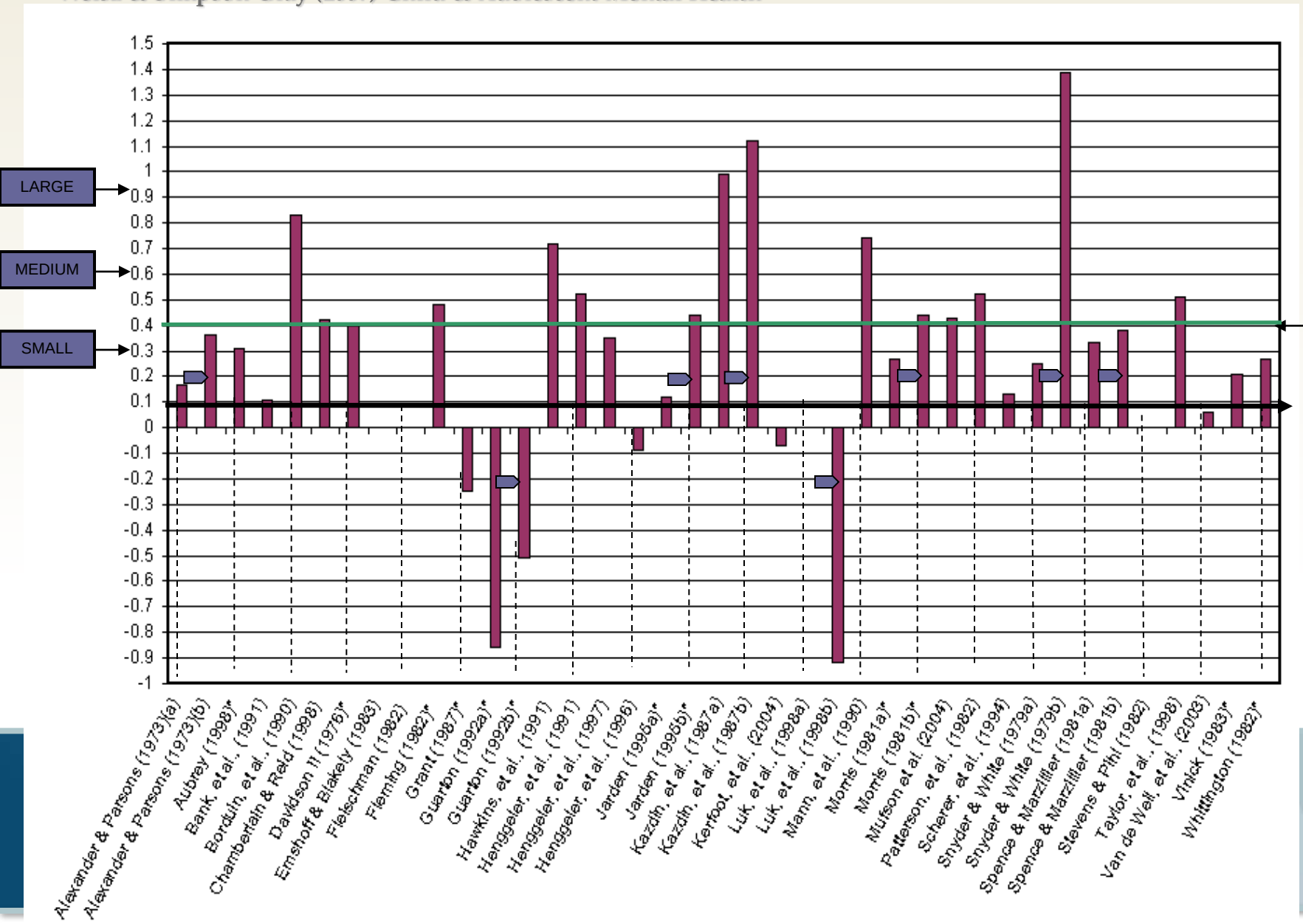
Weisz, Jensen-Doss, & Hawley (2006) American Psychologist

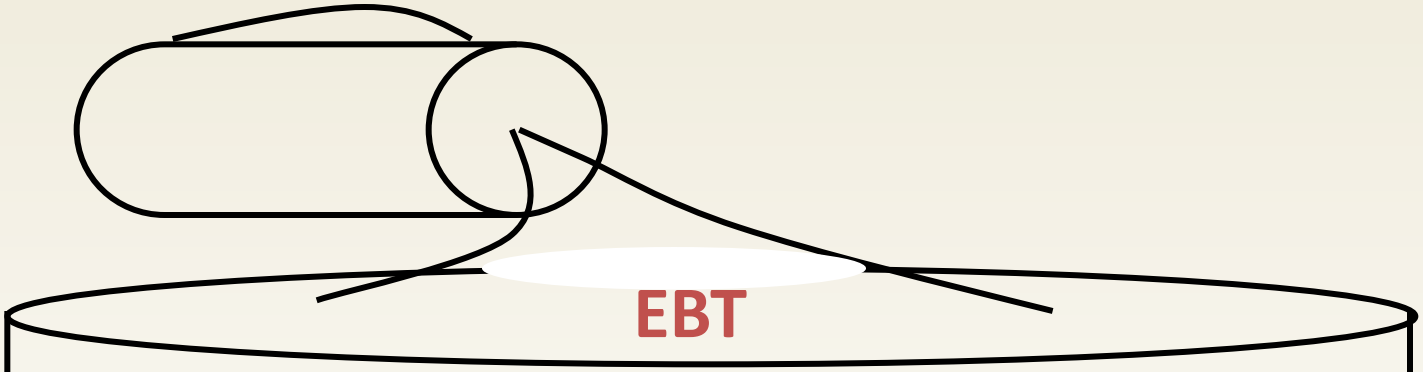


32 Tests of Youth EBts vs. UC (23 pub, 9 unpub)

EBT vs Usual Care: Study by Study

Weisz & Simpson Gray (2007) Child & Adolescent Mental Health





CHILD FACTORS

- Motivation
- Comorbidity
- Problem flux

THERAPIST FACTORS

- Training / beliefs
- Loyalty / incentives
- Time & caseload

FAMILY FACTORS

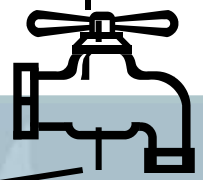
- Parent MH probs
- Time & stress
- Recurring crises
- No-shows, dropout

REAL-LIFE FACTORS

- Poverty, violence
- Child maltreatment
- Placement changes
- No adult who cares

CLINIC FACTORS

- Rules, constraints
- Costs—train, sup
- Productivity reqs
- Reimbursement



OUTCOME

Challenges EBTs Face in Outpatient Care

- **Heterogeneity.** Many clinicians treat multiple disorders in a typical day/week. Learning one EBT for one disorder doesn't help much, and who has time to learn them all?!
- **Comorbidity.** Referred youths tend to be complex, with multiple problems and disorders. Using an EBT that treats only one disorder may not help with them.
- **Flux.** Referred youths don't sit still; their problems may change during treatment. When that happens, a single-disorder EBT may be in trouble.
- **Information void.** Linear, sequential treatments can lead to launch-and-hope approach. Ongoing youth response info could help.
- **Clinician self-regulation.** They don't like cookbooks.

Co-morbidity in Outpatient Youth

Jensen-Doss & Weisz, JCCP (2002)

DISORDER	% With That Disorder	% With ONLY that Disorder	% With That Disorder + Others
Depression	23%	3%	20%
Anxiety	39%	12%	27%
Conduct Disorder	18%	2%	16%
Opp Defiant Dis	42%	9%	33%

DEPLOYMENT-FOCUSED MODEL

- Efficacy 1
- Efficacy 2
- Efficacy N
- Dismantling
- Moderators
- Add-ons
- -- Family component
- -- Booster sessions
- -- Etc.
- Mediators
- [Effectiveness]

Child STEPs has Two Components

- **Evidence-derived clinical treatments for multiple problems/disorders using modular design: MATCH-ADTC**
  - Addresses diverse clinician caseloads
  - Addresses comorbidity in treated youths
  - Addresses flux/shifts in youth problems during treatment
  - Address clinician preference, concerns about cookbook treatment, wish to use clinical skill and judgment
- **Evidence-generating clinical information system/TRAC**
  - Meets clinicians' need for information on youth treatment response
  - Guides decision-making during treatment
  - Tracks outcome trajectories (clinical & research value)

CHILD STEPS TREATS FOUR PROBLEM CLUSTERS USING MATCH-ADTC

CBT for Anxiety
[46 RCTs]

CBT for Depression
[18 RCTs]

CBT for Trauma
[6 RCTs]

BPT for Conduct
[32 RCTs]

MATCH-ADTC Uses 3 Forms of Regulation Derived from 50 Years of Intervention Research

I. Emotional/affective Self-regulation:

Illustrated in the following video….

MATCH-ADTC Uses 3 Forms of Regulation Derived from 50 Years of Intervention Research

II. Cognitive Self-regulation:

Illustrated in the following video…..

MATCH-ADTC Builds 3 Forms of Regulation Derived from 50 Years of Intervention Research

III. Behavioral Self-regulation:

Illustrated in the following videos…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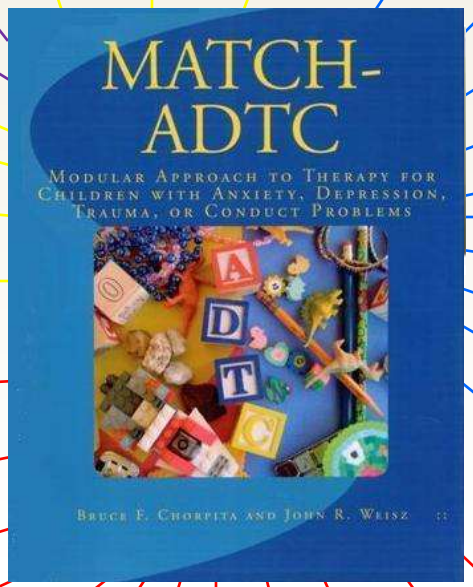
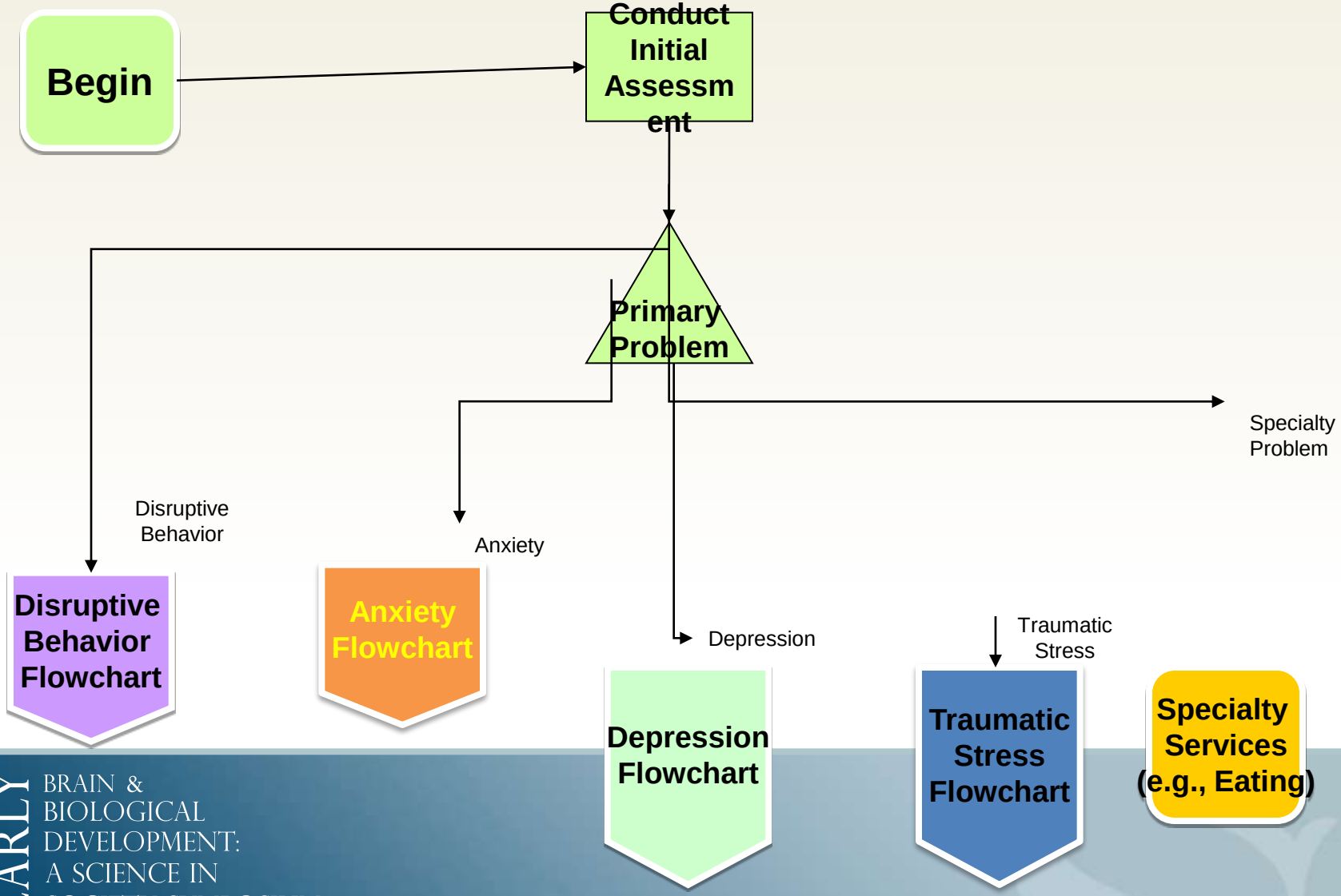
EARLY BRAIN & BIOLOGICAL DEVELOPMENT: A SCIENCE IN SOCIETY SYMPOSIUM

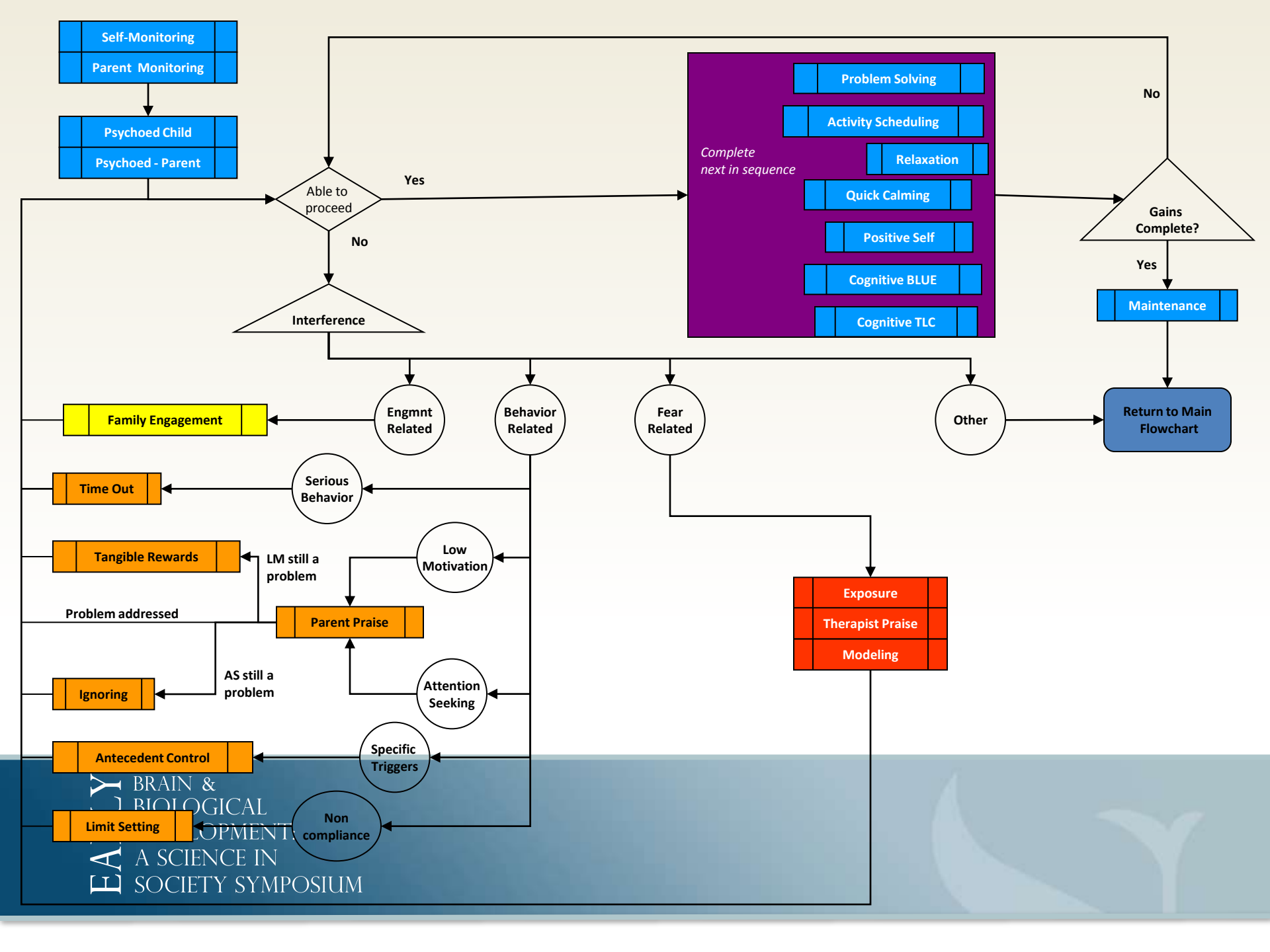


Safety Planning
Mainten-ance
Cognitive Stop
Wrap Up
PsychoEd Child
PsychoEd Parent
Problem Solving
Activity Selection
Relaxation
Quick Calming
Positive Self
Cognitive BLUE
Cognitive TLC
Plans for Coping
Booster Session
Looking Ahead
Daily Report Card
Making a Plan
Time Out
Rewards
Effective Instruct
Active Ignoring
Praise
1 on 1 Time
PsychoEd Parent
Engaging Parents
Fear Ladder
PsychoEd Child
PsychoEd Parent
Exposure
Trauma Narrative

EARLY
A SCIENCE
SOCIETY

CHILD STEPs DECISION TREE




Self-Monitoring
Parent Monitoring
Psychoed Child
Psychoed - Parent
Able to proceed
Yes
No
Interference
Complete next in sequence
Problem Solving
Activity Scheduling
Relaxation
Quick Calming
Positive Self
Cognitive BLUE
Cognitive TLC
No
Gains Complete?
Yes
Maintenance
Return to Main Flowchart
Engmnt Related
Behavior Related
Fear Related
Other
Family Engagement
Serious Behavior
Time Out
Tangible Rewards
LM still a problem
Low Motivation
Problem addressed
Parent Praise
AS still a problem
Ignoring
Attention Seeking
Specific Triggers
Antecedent Control
Non compliance
Limit Setting
Exposure
Therapist Praise
Modeling
BRAIN & BIOLOGICAL
A SCIENCE IN SOCIETY SYMPOSIUM

Therapist Decision-Making is Guided by our Treatment Response Assessment for Children (TRAC)

1. **Standardized measure of Int, Ext, Total Probs:**
   - Brief Problem Checklist-Youth (12 items)
   - Brief Problem Checklist-Caregiver (12 items)
2. **Idiographic measure of consumer concerns:**
   - Youth Top Problems Assessment
   - Caregiver Top Problems Assessment
3. **Practices used (modules)**

Key Features:

Brevity, simplicity makes for ease of assessment

Carried out weekly—by phone (include no-shows)

Displayed on web-based dashboard for each child

Brief Problem Checklist: Externalizing Problems

How true of your child during the past week?

0=Not true 1=Somewhat true 2=Very true

1. Argues a lot……..0 1 2

2. Destroys things belonging to his/her family or others…....0 1 2

3. Disobedient at home or at school……0 1 2

4. Stubborn, sullen, or irritable……..…0 1 2

5. Temper tantrums or hot temper…….....0 1 2

6. Threatens people……..0 1 2

Youth-Identified Top Problems

Below are the top three problems you mentioned in the beginning of the treatment. Please mark how true you think it is of your child in the **last week**, either “not true,” “somewhat true,” or “very true.”

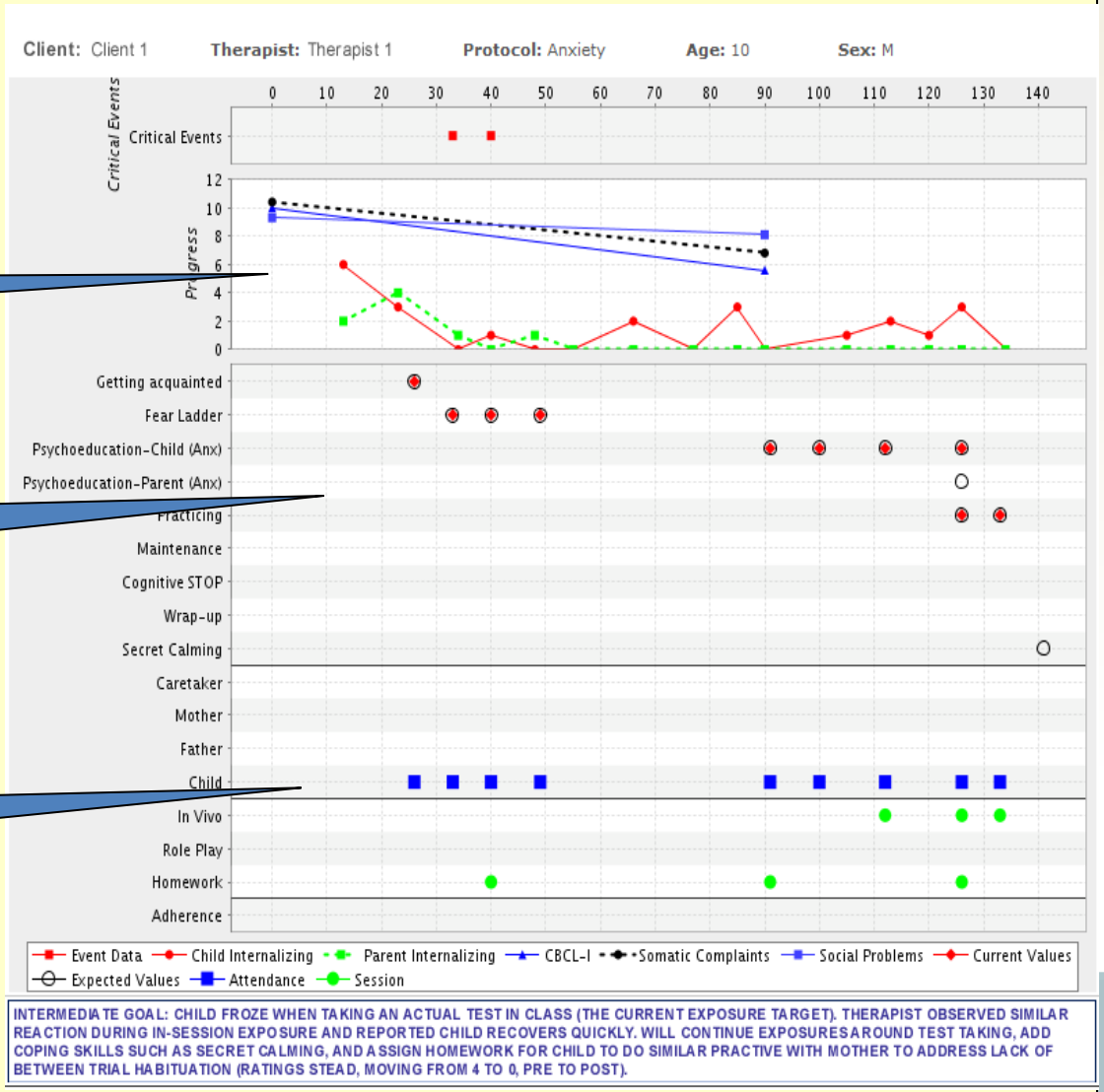
Item	Answers		
1. He feels sad and cries.	Not True	Somewh at True	Very True
2. He stays in bed and won’t go to school.	Not True	Somewh at True	Very True
3. He feels rejected, like nobody likes him.	Not True	Somewh at True	Very True

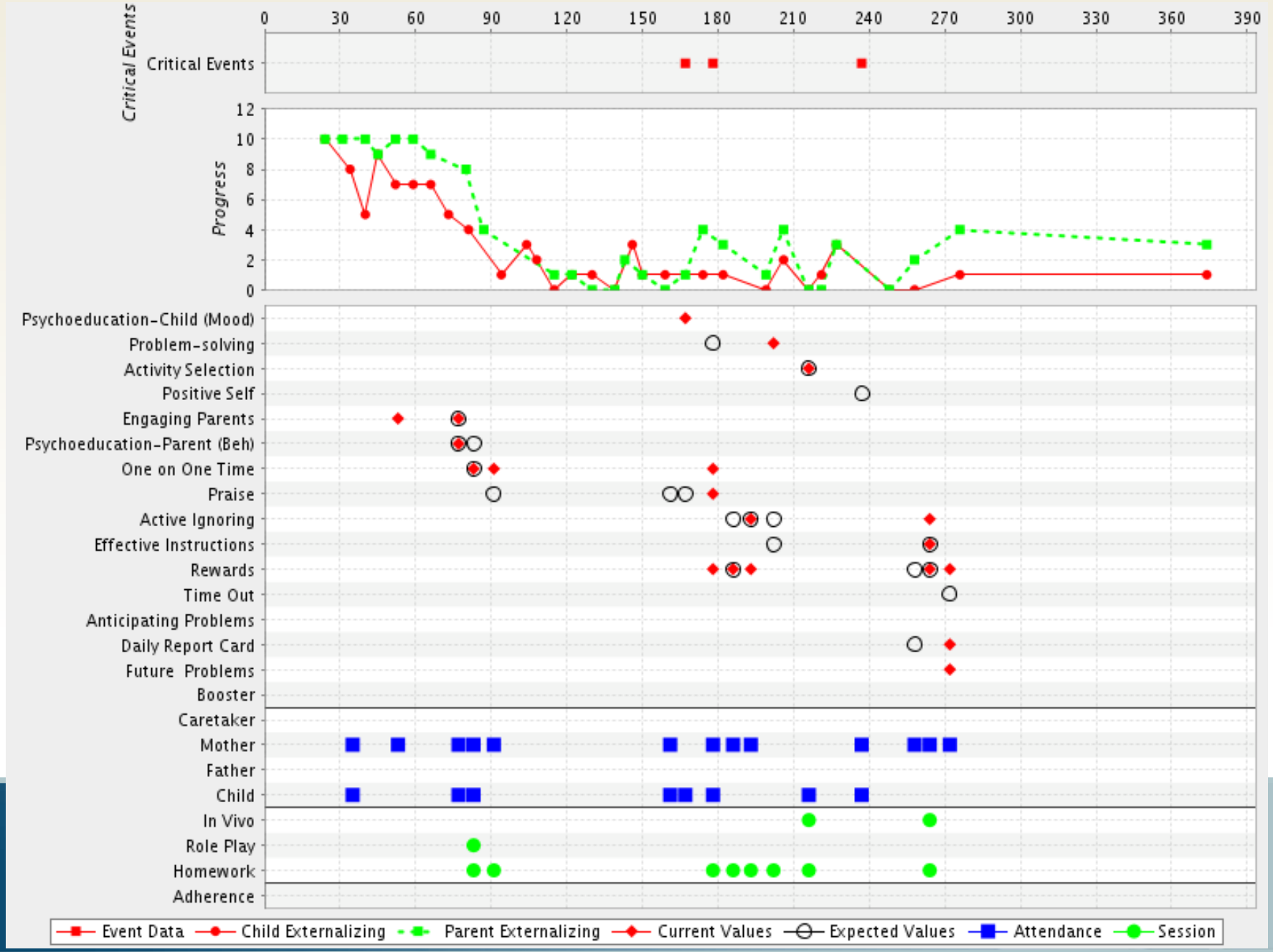
TRAC:
Individual Child Dashboard (Internalizing)

Are results on track?

Do the practices fit the problem?

Is family engagement OK?




Critical Events
0
30
60
90
120
150
180
210
240
270
300
330
360
390
Critical Events
Progress
12
10
8
6
4
2
0
Psychoeducation-Child (Mood)
Problem-solving
Activity Selection
Positive Self
Engaging Parents
Psychoeducation-Parent (Beh)
One on One Time
Praise
Active Ignoring
Effective Instructions
Rewards
Time Out
Anticipating Problems
Daily Report Card
Future Problems
Booster
Caretaker
Mother
Father
Child
In Vivo
Role Play
Homework
Adherence
Event Data
Child Externalizing
Parent Externalizing
Current Values
Expected Values
Attendance
Session

Clinic Treatment Project: Design

Weisz, Chorpita, Network, et al. (under review)

Therapists in ten outpatient settings randomized to:

- **A. Standard Manual Treatment** (SMT; what researchers stress, true to evidence base)
- **B. Modular Manual Treatment** (MMT) (what clinicians say they want/do, but we help via modules, flow charts)
- **C. Usual Care** (UC)

Children (N=174, ages 8-13 yr.)

- Anxiety, Depression, Conduct/ADHD, any combo

Assessments: intake (Diagnosis), weekly (Brief Problem Checklist, Top Prob ratings), quarterly (CBCL/YSR), post-treatment & 15 mo. (Diagnosis, therapist satisfaction with treatment provided)

Clinic Treatment Project Findings

Child STEPS Model of Change

Identify Primary Problem(s)

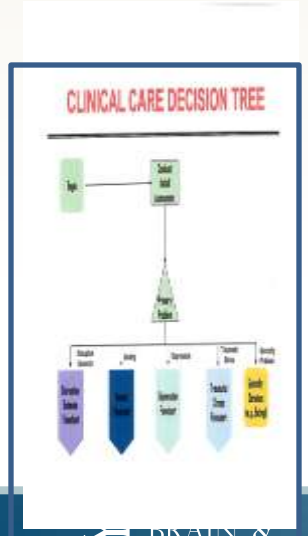
Treat Problem(s): Target Mecha-nism(s) of Change

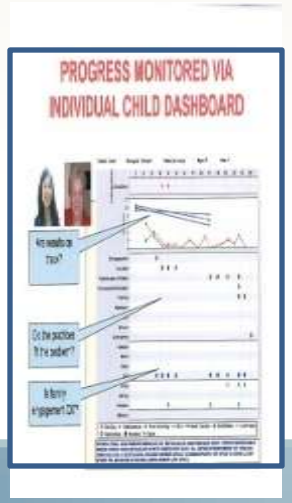
- Anxiety (Exposure)
- Depression (Thoughts, Behavior)
- Conduct (Parenting Skills)

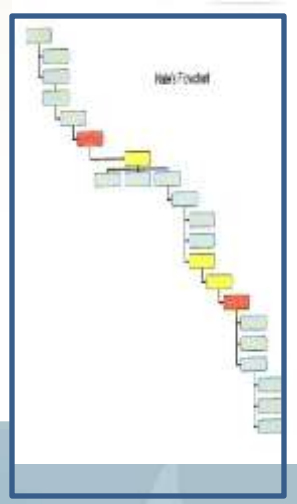
Monitor Treatment Response

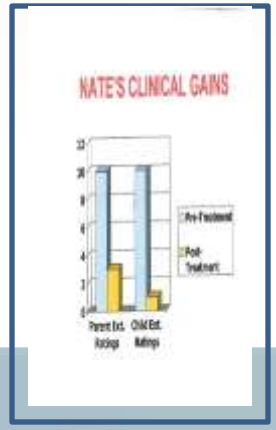
Adjust Treatment Until Gains are Complete

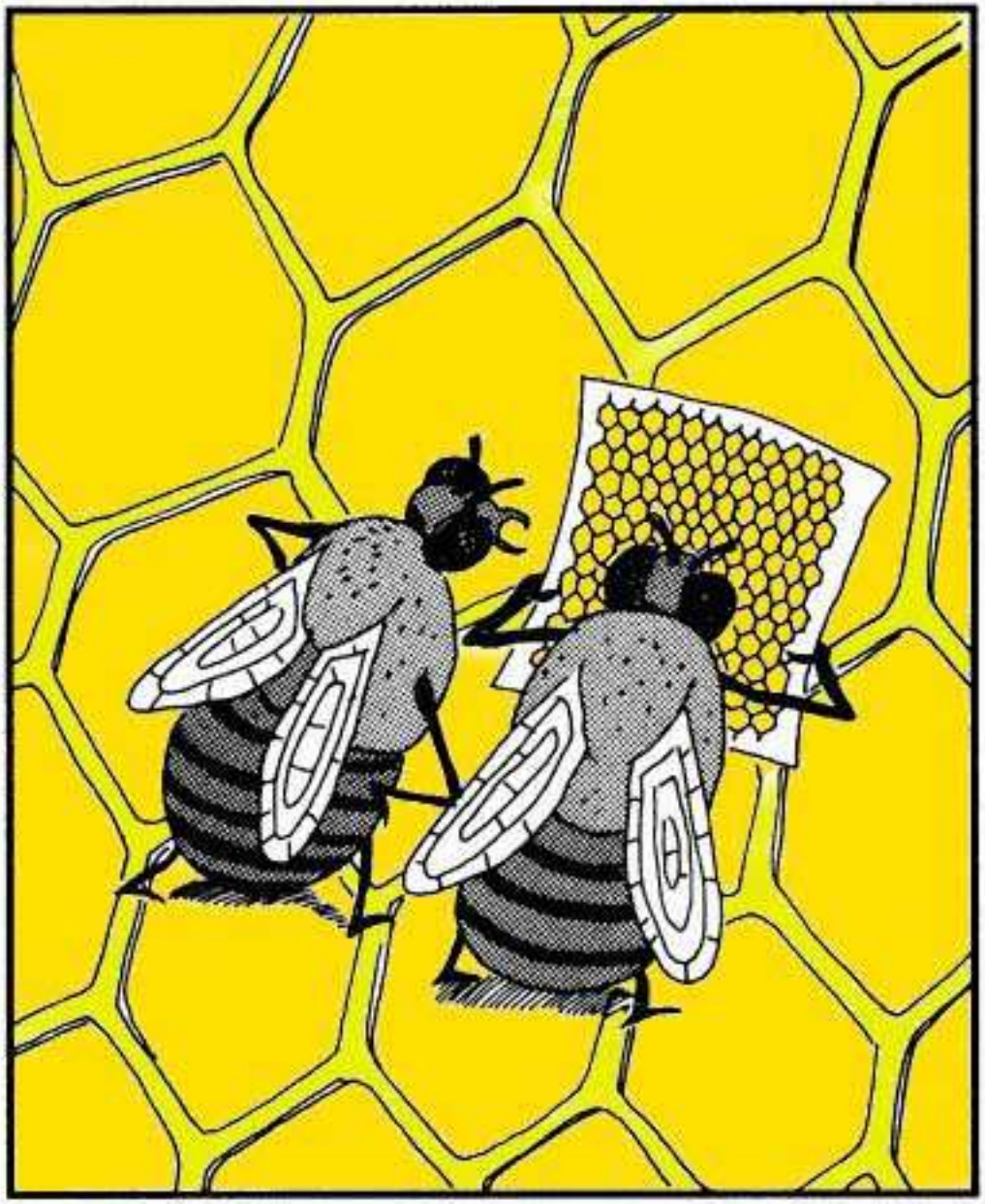
Reduced Child Problems, Improved Child Functioning










So, Where are we exactly?

Questions for a Biology of Youth Therapy

1. **Signs of success.** When treatment is successful, what measurable biological processes are altered? What biological changes accompany changes in emotional, cognitive, or behavioral regulation?

2. **Stopping rules**. Are there biological indicators that can tell us when the desired changes are in place, and therapy can end?

3. **Individualizing treatment.** Are there biological characteristics that can help us predict which treatments will work best with which individuals? [various psychotherapies, medications, or both]

4. **Improving therapy.** Can understanding the underlying biology help us improve the effectiveness of current therapies or lead to new and more effective approaches?

Graduate Student & Postdoctoral Collaborators

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