

# Evidence Based Services in the Context of a System of Care

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## *Acknowledgements*

**Alfred Arensdorf, Lenore Behar, Eric L. Daleiden, Christina Donkervoet, Ivor Groves, Hawaii Ohana Project, Kimberly Hoagwood, Sonja Schoenwald, John R. Weisz, and the CAMHD staff**

*The values of science and the values of democracy are concordant, in many cases indistinguishable.*

Sagan, 1996

# System of Care Values

- Child and Family Centered
- Culturally Sensitive
- Open Access
- Individualized to Needs of Youth and Family
- Least Restrictive
- Coordinated
- Families as Full Participants
- Prevention Based
- Advocacy for Youth

# Evidence Based: Common Perception

- Expert Driven
- Culturally Insensitive
- Limited Access—Specialty Service Model
- Standardized Treatments – Cookie Cutters
- Restrictive/Medical
- Disconnected Array of Services/Programs
- Families as Passive Consumers
- Disorder Based
- Advocacy for Professional Guilds

# Important Point #1

- Whether these perceptions are fact or fiction can depend in a large part upon how evidence is valued, defined, and integrated into a system of care

# Decisions: Informed or Not

- Care and services provided to a youth involves a multitude of highly complex decisions to be made at repeated intervals
- How are these decisions informed?

# About Evidence

- Ignoring evidence is human nature
  - Demands on processing
- When we attend to evidence, we attend selectively, especially when emotions are involved
  - Biased processing
  - Cognitive “short cuts”

What is evidence?

*Everyone seemed to agree with  
Socrates that justice was a good thing,  
but there was a complete lack of  
consensus on the definition of justice*

Kazdin, 1996

# Evidence is information

- Not all information is of the same quality
  - Librarian example
- Importance of measurement
  - (e.g., weight)

# Evidence is Information

- We want the best there is
- Defining evidence is important to minimize its inherent bias
- $A > B$

# History

- APA Guidelines Task Force
  - Barlow et al., 1995
- APA Div. 12 Dissemination Task Force
  - Chambless et al., 1995
- APA Division 53 Task Force
  - Lonigan et al., 1998

# Most Recently

- Society for Clinical Child Psychology  
[www.clinicalchildpsychology.org](http://www.clinicalchildpsychology.org)
  - Co-sponsored by the MacArthur Foundation and the American Psychological Association

# Problem

The majority of evidence may not be considered fully relevant to systems that seek to use such evidence to shape practice policy.

# Hawaii Department of Health

## Empirical Basis to Services Task Force

- Unique state & university partnership
- Psychology, psychiatry, social work, nursing, law, family members
- Established broader definition of evidence
- Reviewed over 1,500 studies
- Crafted **relevant** local practice policy

# Evidence

- Multiple levels of support:
  - Level 1: Best support
  - Level 2: Good support
  - Level 3: Some support
  - Level 4: Minimal Support
  - Level 5: Known risks

# Feasibility

- Acceptability
  - How many participate?
- Dropouts
  - How many complete?
- Trainability
  - Manuals and training materials available?

# Generalizability

- Child/Family
  - Age; Culture; SES
- Therapist
  - Training; Degree
- Setting
  - School; Clinic
- Frequency
  - Daily; weekly
- Duration

# Cost and Benefit

- Demands on system
- Expected benefit
  - Effect size (how much will the average child improve?)

# Diffusion of Policy

- Individuals selecting an intervention now use much more of the relevant data in the research base
- Goal is to have the data at the fingertips of all stakeholders

# Example: Efficacy

<b>Problem</b>	<b>Level 1 best support</b>	<b>Level 2 good support</b>	<b>Level 3 some support</b>	<b>Level 4 no support</b>	<b>Level 5 known risks</b>
<b>Anxiety</b>	CBT; Exposure; Modeling	CBT+ parents; Ed support	None	EMDR; Play Tx; GIST	None
<b>ADHD</b>	Behavior Therapy	None	None	Biofeedback; Play Tx; GIST	None
<b>Autism</b>	None	None	ABA; FCT	Play Therapy; GIST	None
<b>Conduct</b>	None	Multisystemic Therapy	None	Juvenile Justice; Individual Tx	Group Therapy
<b>Depression</b>	CBT	CBT + parents; IPT; Relaxation	None	Family Tx; Individual Tx	None
<b>Oppositional</b>	Parent/Teacher Training	Anger Coping; Assertiveness; PSST	None	Relaxation; Individual Tx	Group Therapy
<b>Substance</b>	CBT	Behavior Tx; Family Tx	None	Individual Therapy	Group Therapy

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# Example: Effectiveness

- *14 year old*
- *Depressed*
- *Puerto Rican*
- *Male*
- *Late in semester*

# Evidence: Interventions for Depression

Intervention	Finish	Age	Ethn	Staff	Length	Setting	Effect
<b>Level 1</b>							
<b>CBT</b>	94%	9 to 18	84% NS; 18%PR; 3%AA	MA; PhD	5 to 16 weeks	Clinic; school	1.74
<b>Level 2</b>							
<b>CBT + parents</b>	88%	14 to 18	NS	MA; PhD	7 to 8 weeks	clinic	1.40
<b>Interpersonal</b>	85%	12 to 18	49% PR; 41% HA; 10% C	MA; PhD; MD	12 weeks	clinic	1.51
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# Example

- *16 year old*
- *Female*
- *Anxiety problems*
- *Both parents available*

# Evidence: Interventions for Anxiety

Intervention	Finish	Age	Ethn	Staff	Length	Setting	Effect
Level 1							
CBT	95%	2 to 17	54% NS; 33% C; 7% Arm; 6%AA	UG; MA; PhD	3 to 16 weeks	Clinic; school	1.05
Level 2							
CBT + parents	93%	14 to 18	NS	MA; PhD	12 weeks	clinic	1.78
Edu support	85%	6 to 17	92% C	N/A	12 weeks	clinic	N/A

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# Evidence-Based Practice

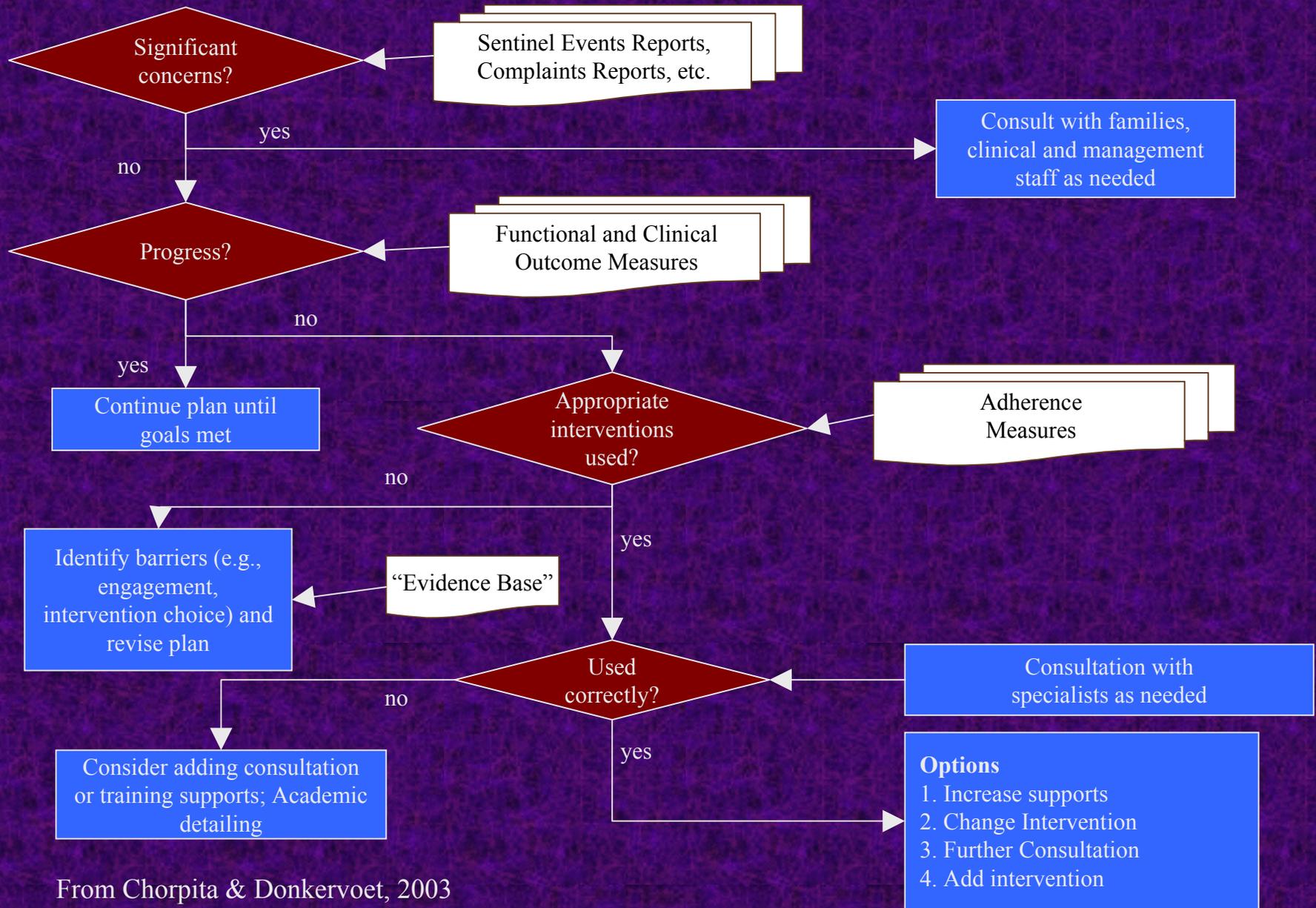
- Not about limiting choices
- About making *informed* choices
- Choices should expand as evidence continues to accumulate
- Systems should be set up to capitalize on dynamic nature of the evidence base

# Summary

- How a system **defines evidence** will affect:
  - The compatibility of practice with system of care values
  - The buy-in of system staff and stakeholders
  - The usability and relevance of that evidence

# Important Point #1 (again!)

- There are a lot more decisions to be made about a child's care than just what intervention program to select



From Chorpita & Donkervoet, 2003

# Poor Implementation

- Switching usual services to sanctioned list
  - Behavioral Health System Example
- Letting diagnosis alone drive all decisions
  - Sentinel Events Example

# Important Point #2

- Measure everything you can that involves the integrity of your decisions about a youth's care, and integrate your evidence
  - Complaints
  - Sentinel Events
  - Outcomes
  - Clinician Practices

# Frequently Asked Questions

- *Do evidence based approaches work for everyone?*

# Answers

- Nothing works for everyone
- Tested approaches have the best chance
- About 60%-70% of children benefit on average

# Frequently Asked Questions

- *Why is there so little on “the list?”*

# Answers

- Rules for what constitutes credible evidence are strict
- Research is expensive
- Research takes LOTS of time
- Depends on which list you look at

# Frequently Asked Questions

- *If something is not on the list,  
does that mean it doesn't work?*

# Answers

- Absence of evidence of effects is not the evidence of absence of effects
- In other words, no. Something not on the list could work.

# Frequently Asked Questions

- *What if a child is doing well, but the review of evidence says a different treatment is better?*

# Answers

- The best evidence is immediate local evidence
- But: measurement should be objective; controls should be in place when possible

# Frequently Asked Questions

- *Why do we have so many group treatments if the review says they are harmful?*

# Answers

- Everything has risks
- Sometimes risks are outweighed by benefits
- Important to be informed of the risks, to make sure benefits merit their tolerance

# Frequently Asked Questions

- *What do I do if children in our system are different than those participating in the studies reviewed?*

# Answers

- Consider the “evidence” for usual care
- Estimate from the closest evidence possible

# Answers

- Have your community participate in services research!

# Frequently Asked Questions

- *Doesn't this mean that we are back to having an expert pick the program for my child?*

# Answers

- Parents are experts on their children
- Professionals should help parents make informed choices
- Almost always, parents make choices for their children, not professionals

# Frequently Asked Questions

- *My child already had an evidence based approach and it did not work, what should I do?*

# Answers

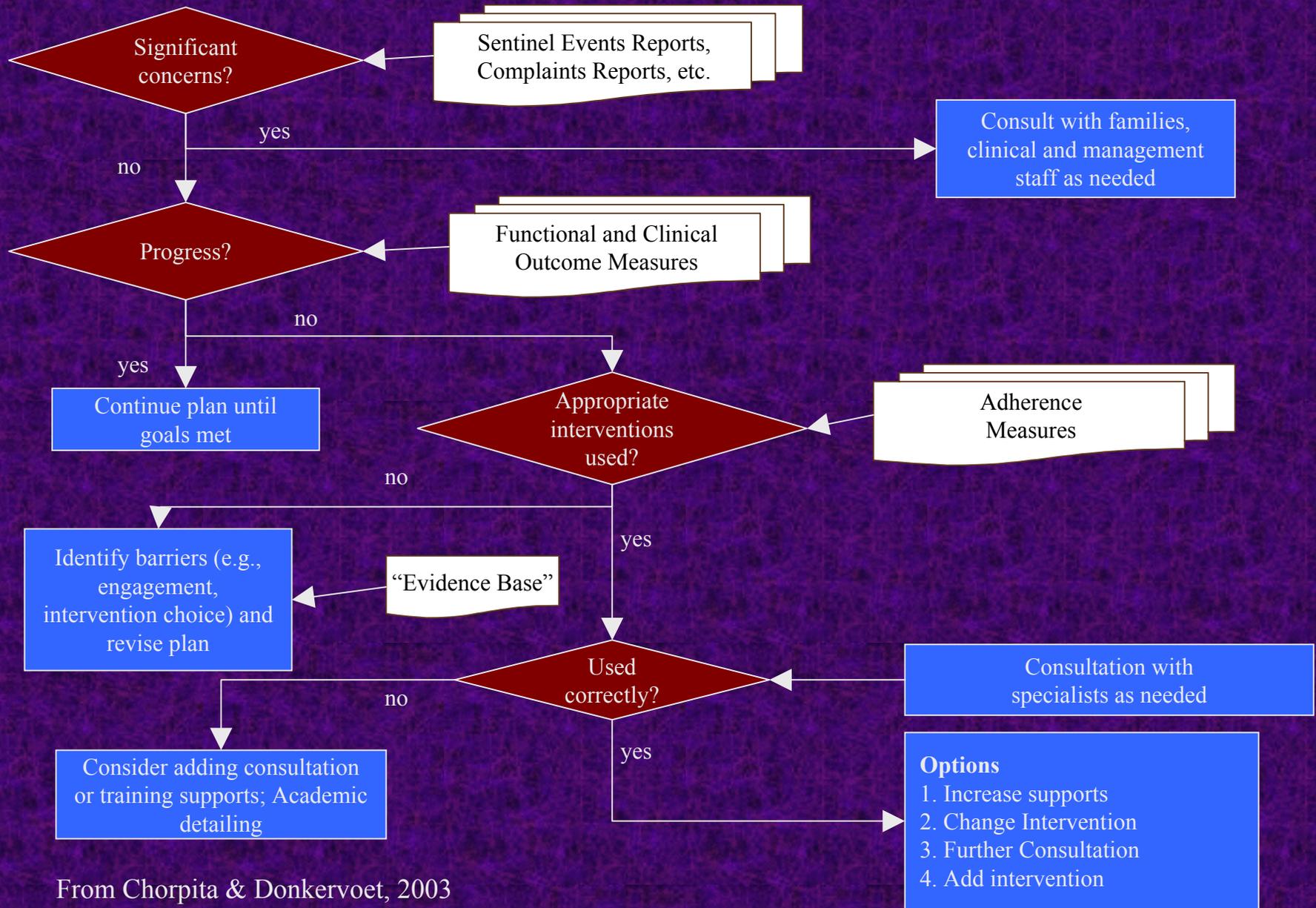
- Try again
- Try something similar

# Frequently Asked Questions

- *What do I do if all the approaches have really been tried, and nothing has worked?*

# Answers

- Try something new that involves the collection of your own evidence



From Chorpita & Donkervoet, 2003

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- Families as informed consumers
- Strengths and needs focused
- Empowerment of youth and family

# **Hawaii's Innovation: Defining Core Elements of Evidence Based Practice**

- Review of intervention content
- Common elements identified
- Yields profiles of promising strategies

# Interventions and Elements

- Interventions are multifaceted services with many techniques and strategies
- Each technique or strategy can be identified as a **practice element**
- These elements are the building blocks of interventions

# Strategy

- **DISTILLATION:** Identify core elements in evidence based approaches
- **MATCHING:** See how they match with client characteristics

# Strategy: Distillation

- Code each demonstration of effective intervention for practice elements
- Cross-tabulate studies with practice elements
- Use all studies contributing to the evidence base
- Yields a matrix demonstrating protocol overlap

# Example

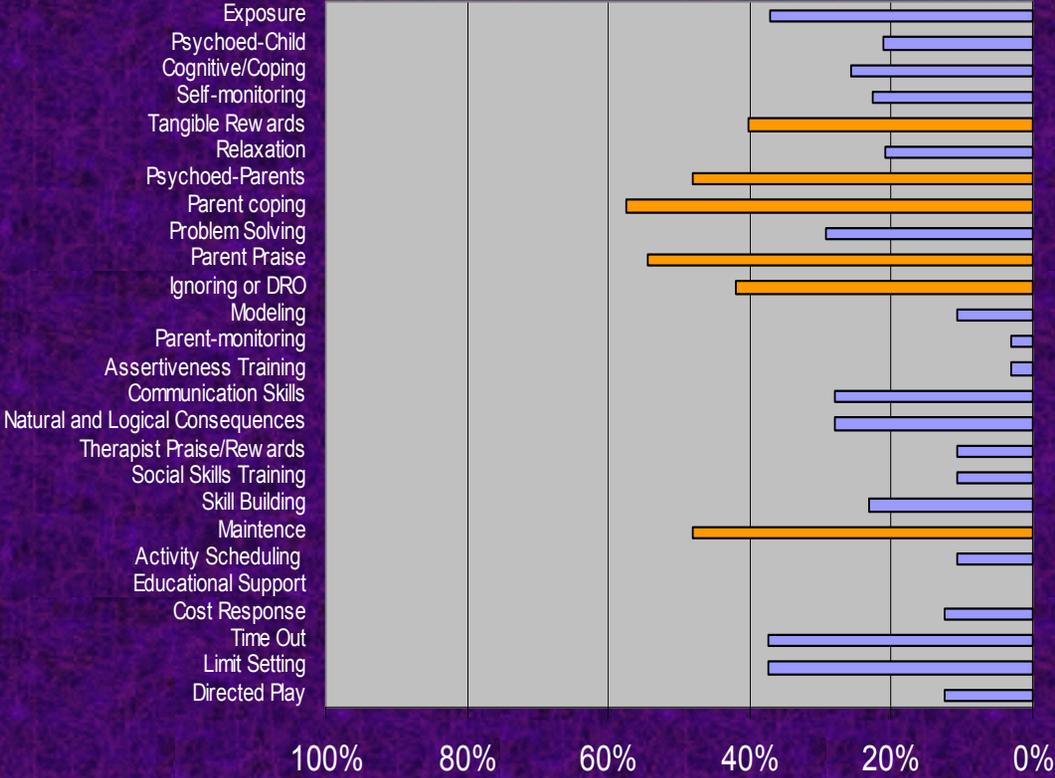
Study	Cognitive	Exposure	Rewards	Relaxation
A	1	0	1	1
B	1	1	1	0

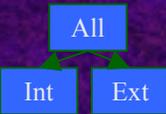
# Strategy: Matching

- Select factor of interest
- Move from highest to lowest level of abstraction
- Stop when specificity no longer yields unique pattern of elements
  - Uniqueness can be empirically determined

# Example

## All Problems

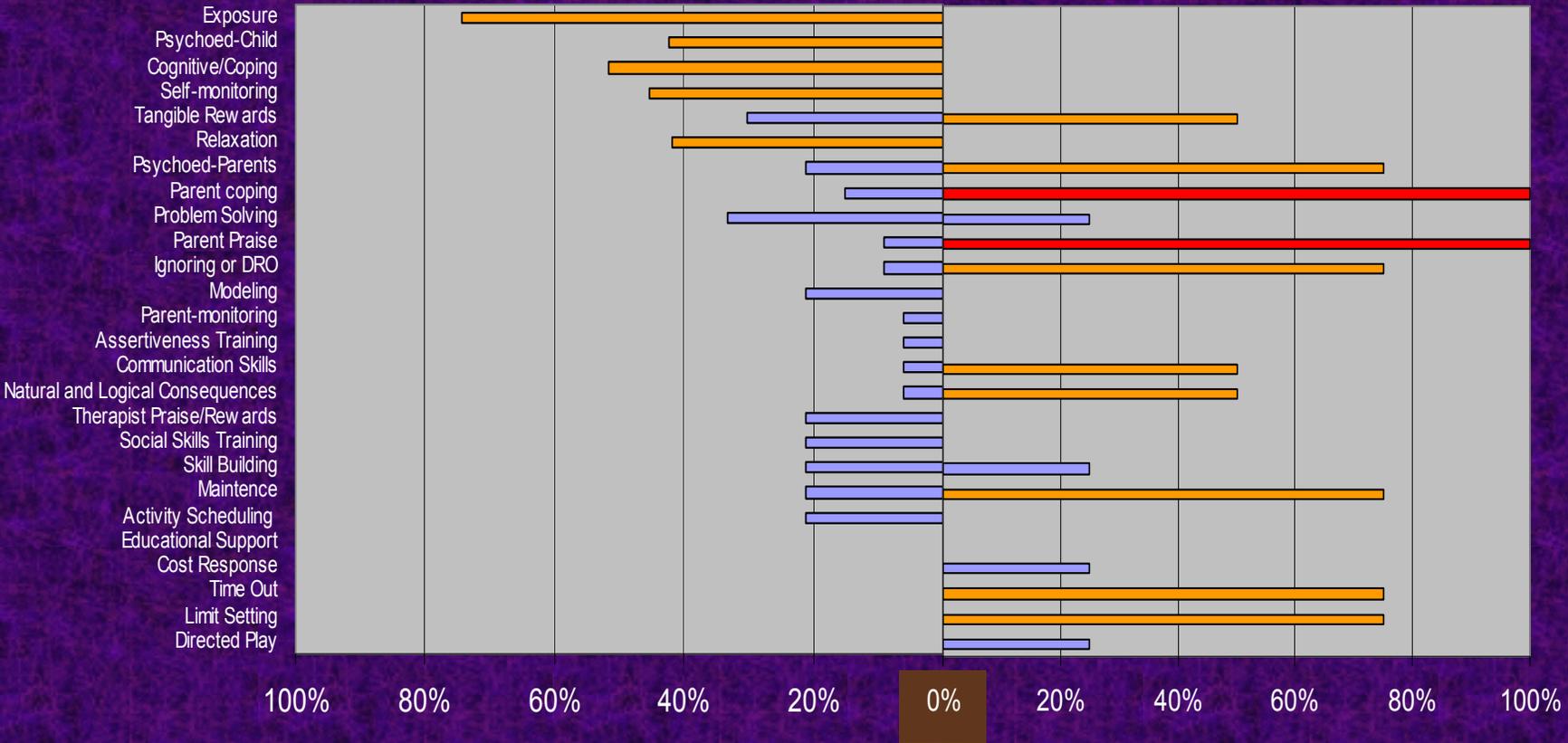




# Example

Internalizing

Externalizing

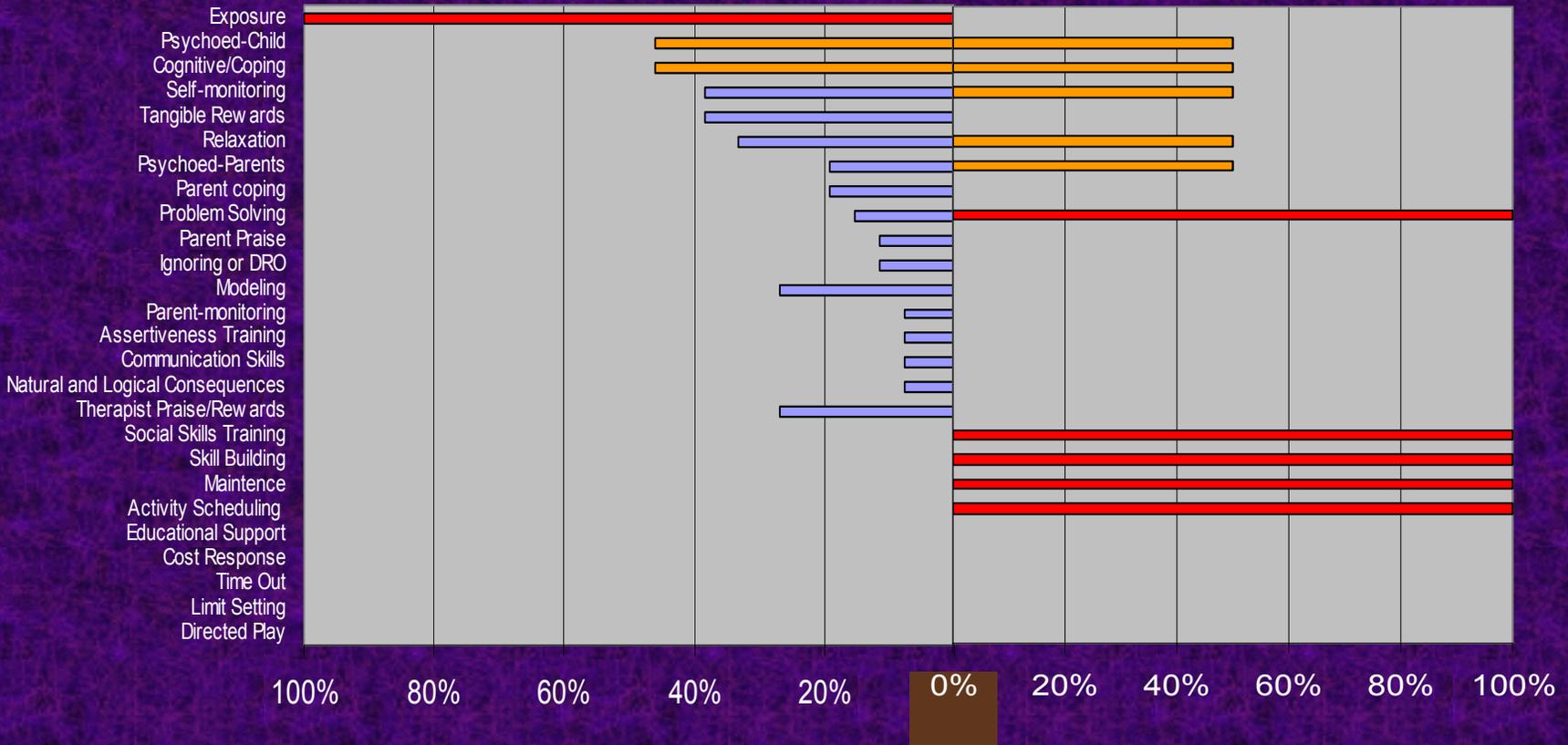


# Example

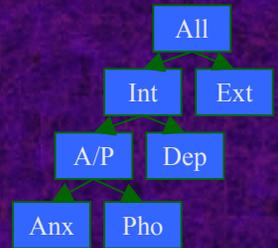


## Anxiety and Phobias

## Depression

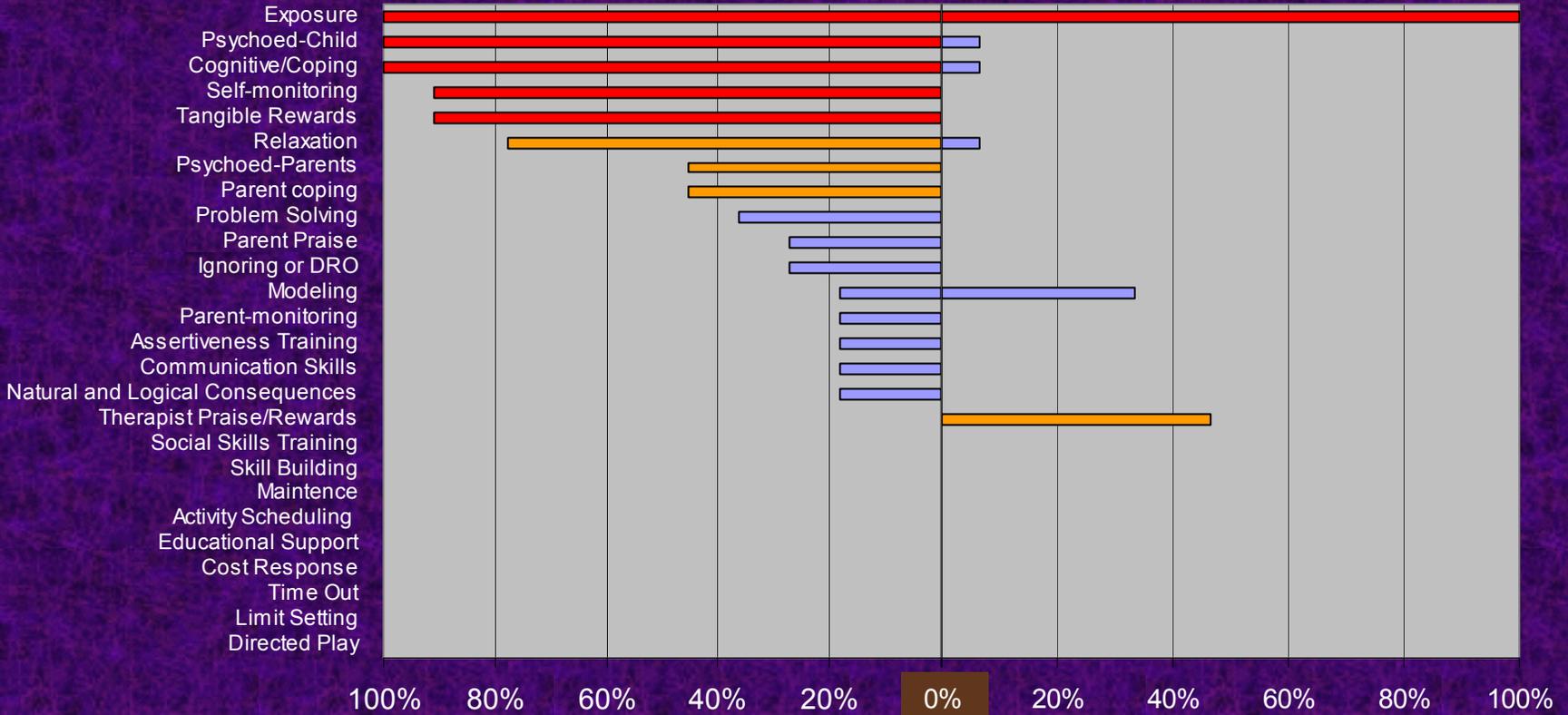


# Example



Anxiety

Phobia

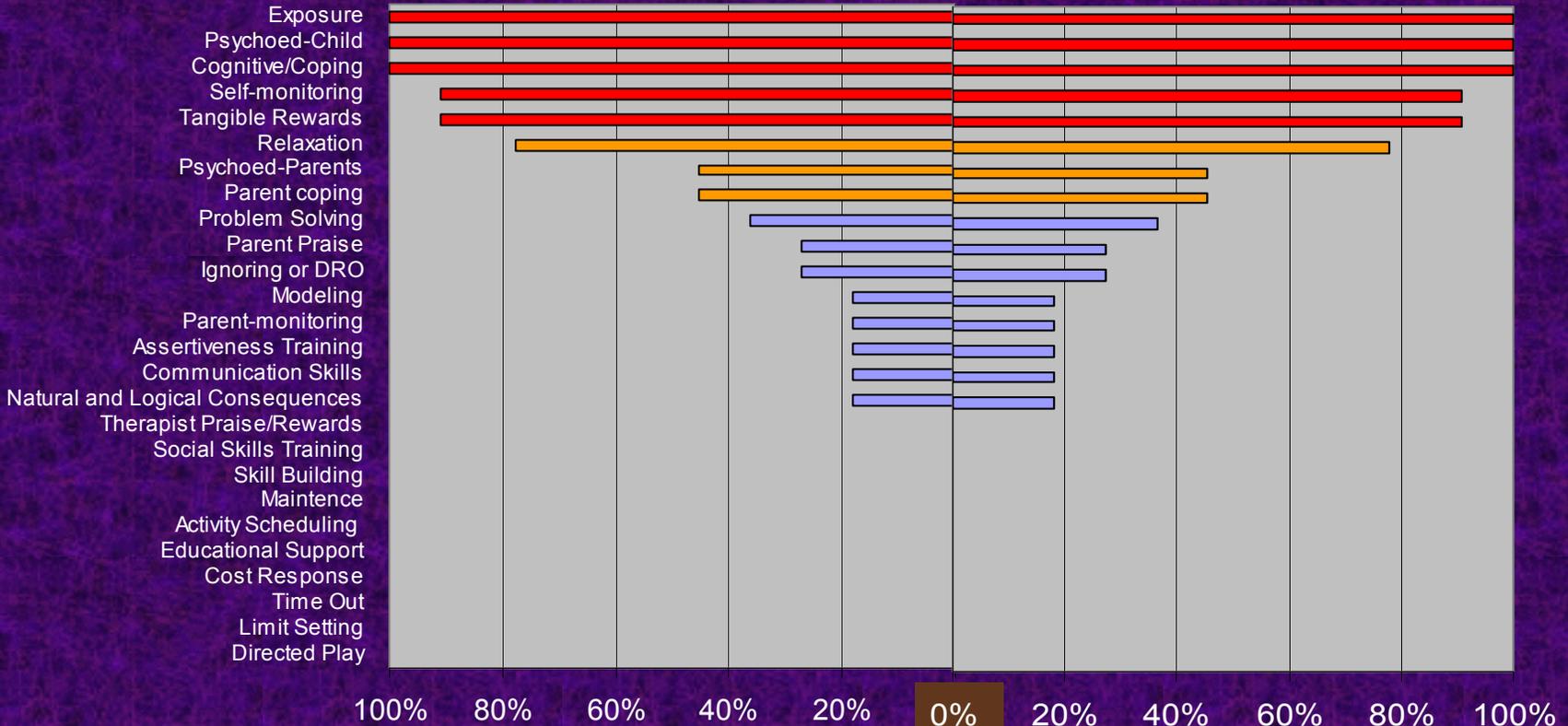


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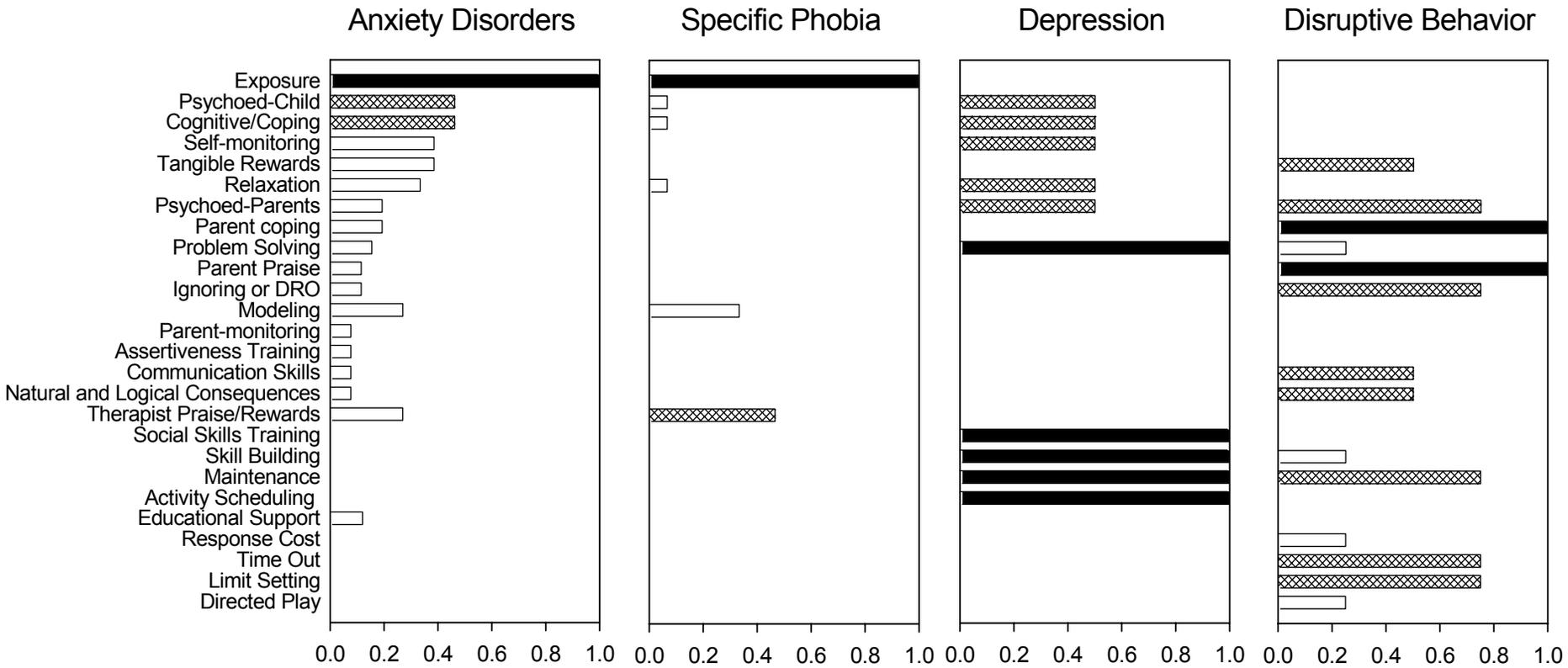


## Overanxious Disorder

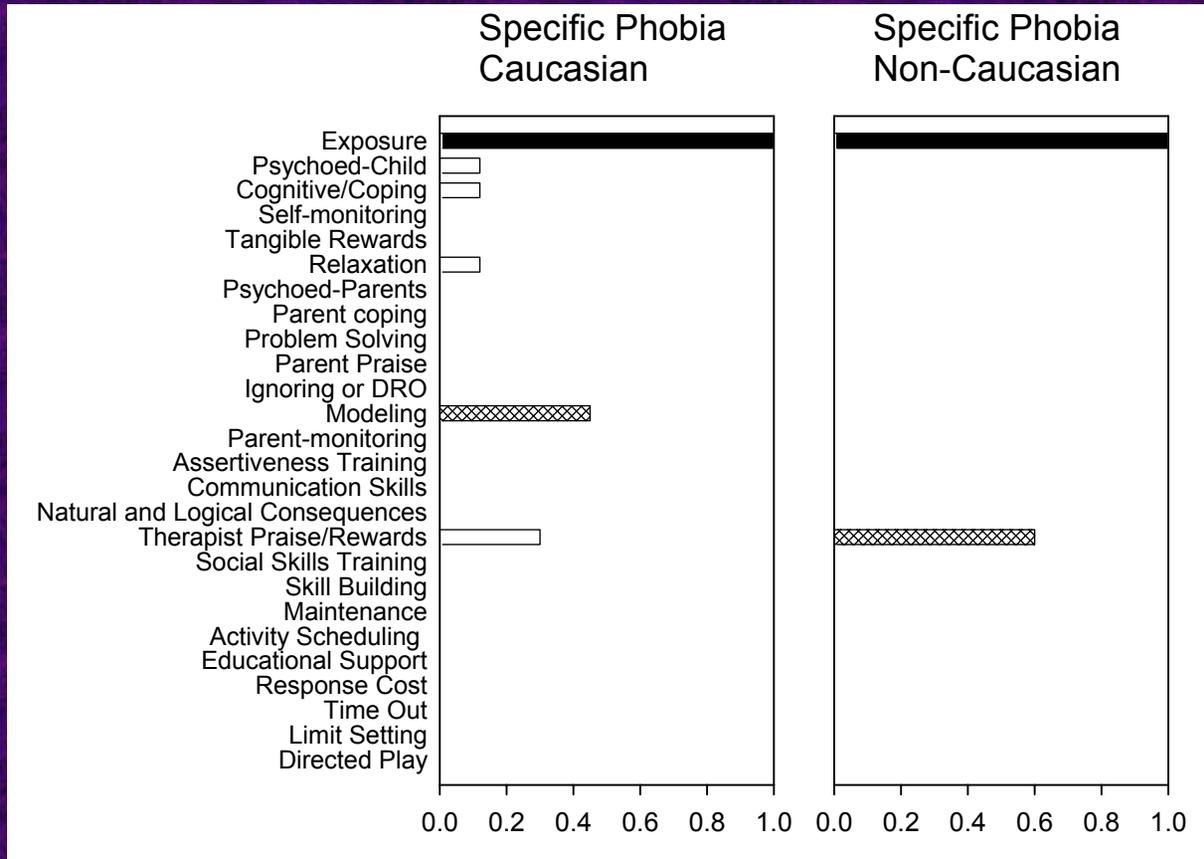
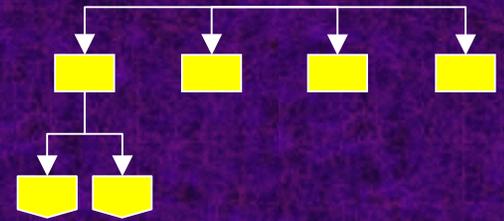
## Separation Anxiety



# Example



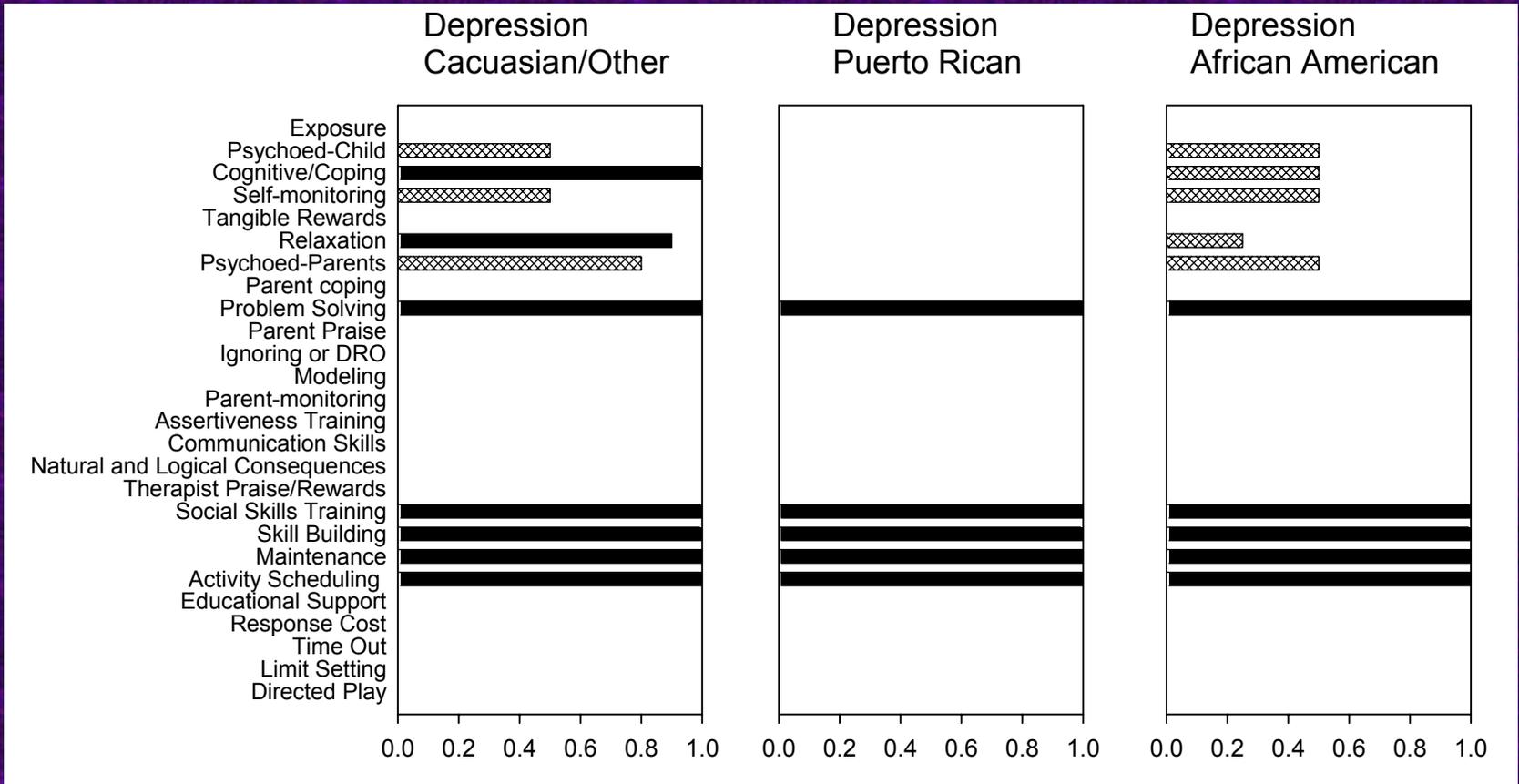
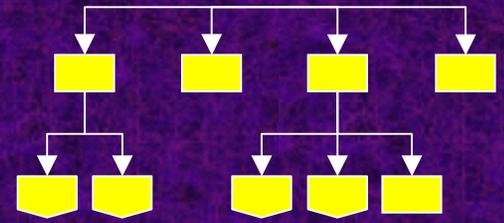
# Example



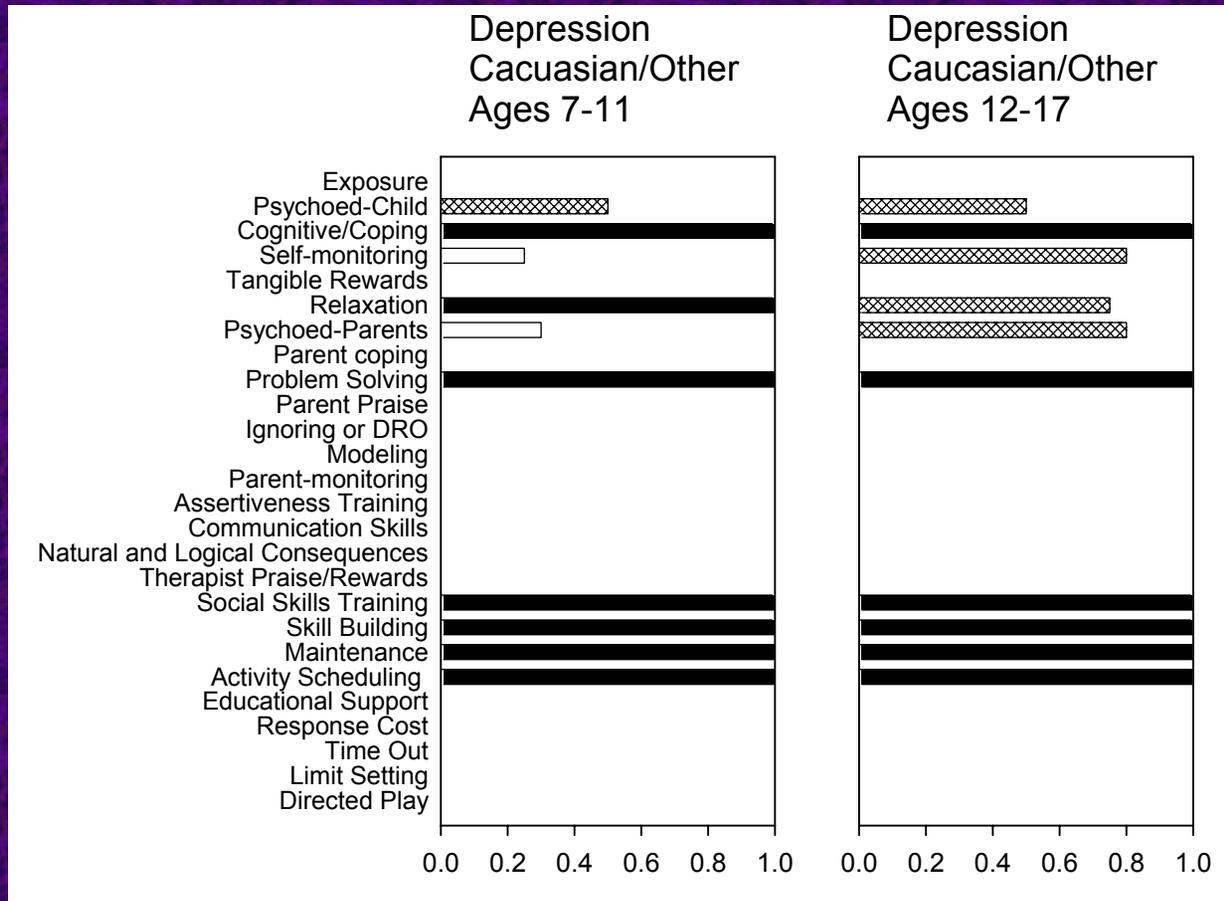
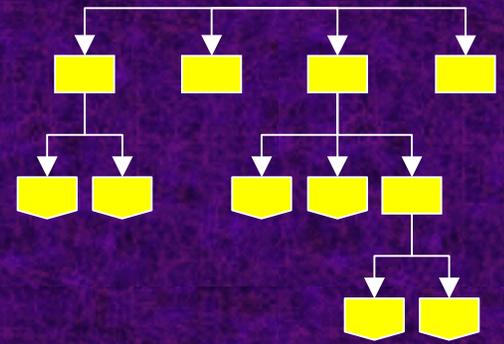
# Barriers to Implementation

- Funding
- Training
- Support
- Drift

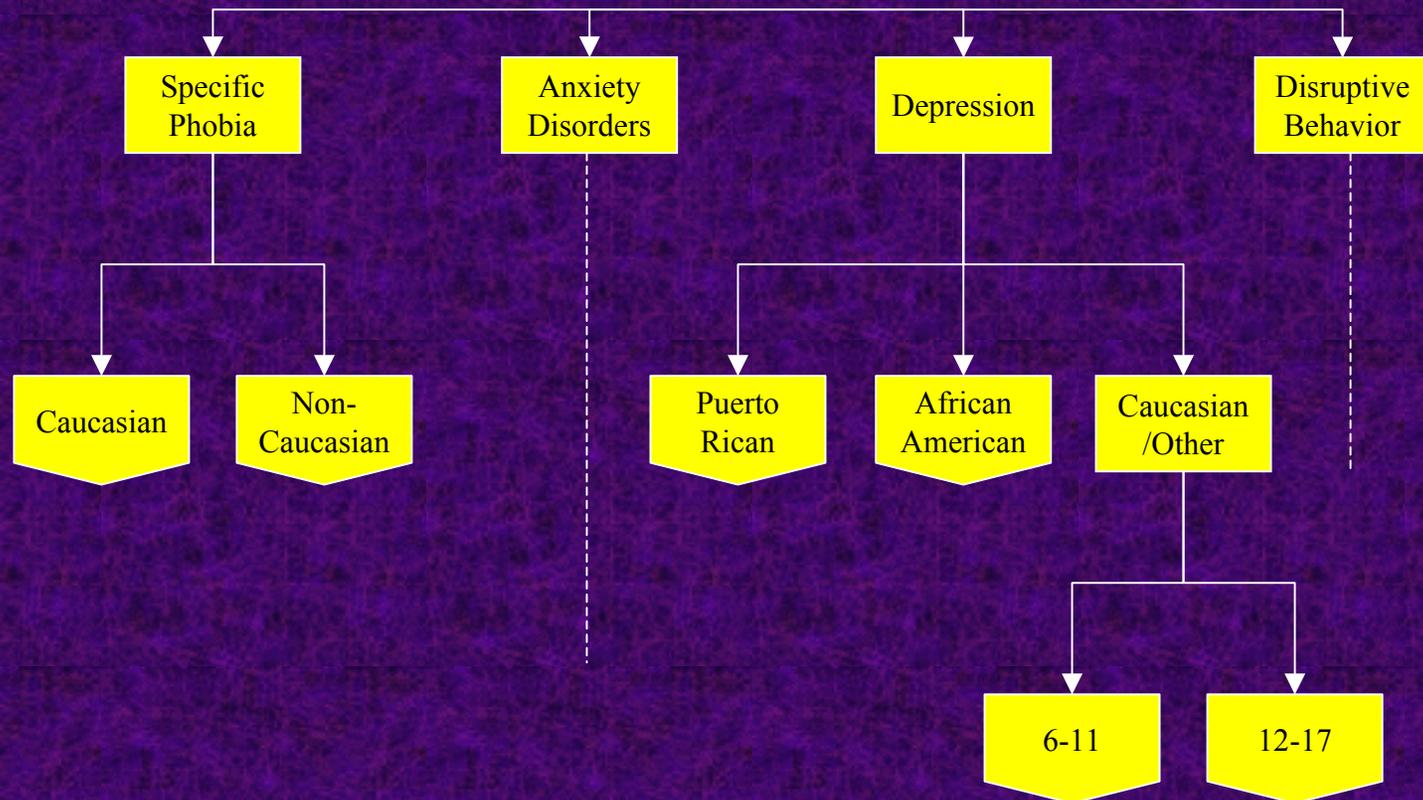
# Example



# Example



# Decision Tree (Partial Example)



# Results as a Guidepost

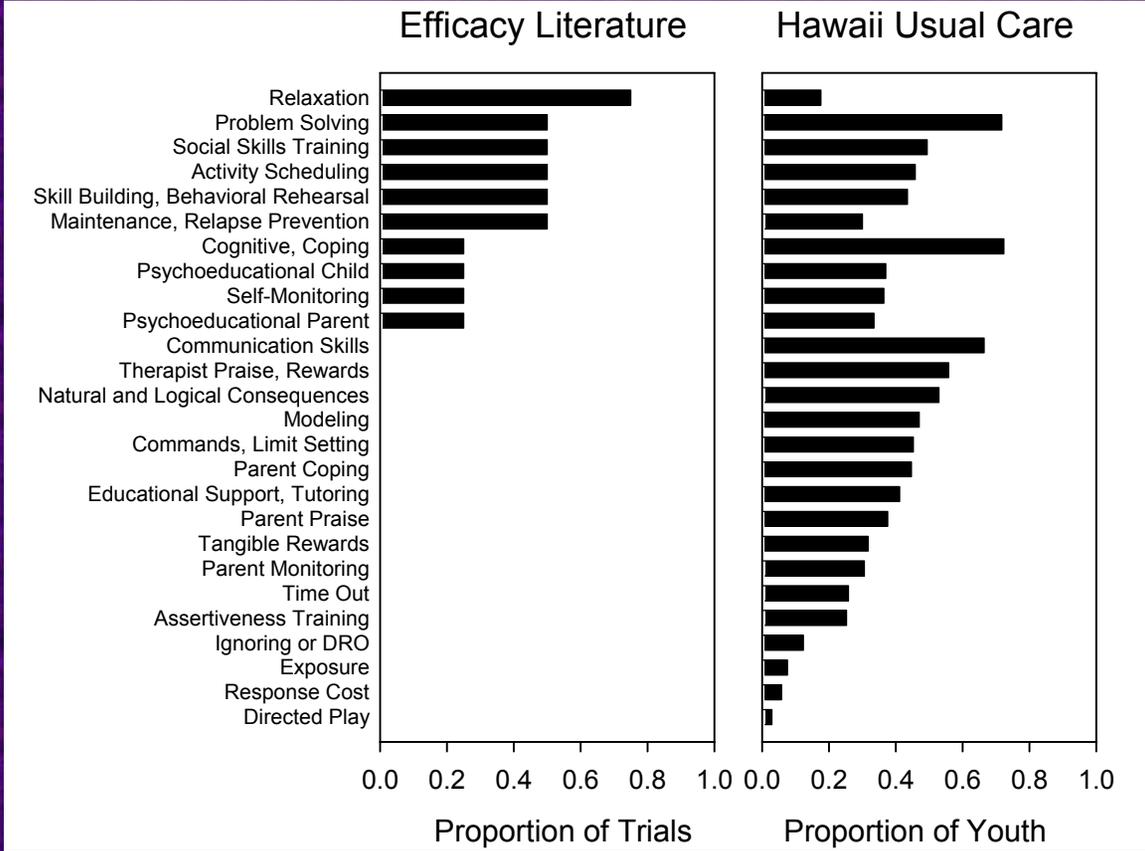
- Can point to a single, fully elaborated intervention
- Can point to choice of multiple promising interventions
- Can profile across areas for which there are no promising interventions
- Not intended to deconstruct promising interventions – intended to point to them

# Application

- To the extent that data exist, can address the question of what works for whom under what conditions
  - e.g., what has worked for African American girls between ages 2 and 5 with posttraumatic stress disorder (PTSD)?

# Advantages

- Ranks relative frequency of elements
  - Leads to empirically informed, individualized interventions
  - Potentially more efficient assembly
  - Avoid shotgun approaches



# Advantages

- Reduces training demands
  - 64 studies reduced to 26 elements
  - Only 11 elements emerged as “core” at highest levels of specificity
  - Number of practice elements should grow less rapidly relative to overall knowledge base

# Advantages

- Allows for examination of any youth characteristics coded from the literature
  - Presence or absence of substance use
  - Gender
  - Child or adolescent
  - Outpatient or out of home

# Advantages

- Supports youth with multiple targets
- Summation of practice elements
  - Allows for evidence-based provision of services to more than just “pure” cases

# Advantages

- Flexible matching of interventions to youth
  - Families can better participate in intervention planning
  - Helps inform revisions to plan

# Advantages

- Handles problem of duplicate evidence
  - Averages across interventions that have equivalent evidence for addressing a target in a given context
  - Gives weighted consideration to all effective approaches

# Advantages

- Handles problem of no evidence
  - Averages across broad classes of targets to leave fewer areas for which there are no informed options
  - Leaves fewer families and youth behind
    - (e.g., obsessive compulsive disorder, bulimia)

# Measuring Your Practice

- The CAMHD Monthly Treatment Progress Summary
- “Provider Monthly Summary”
- Allows for examination of treatment operations on common metric across all programs

# Results as a Guidepost

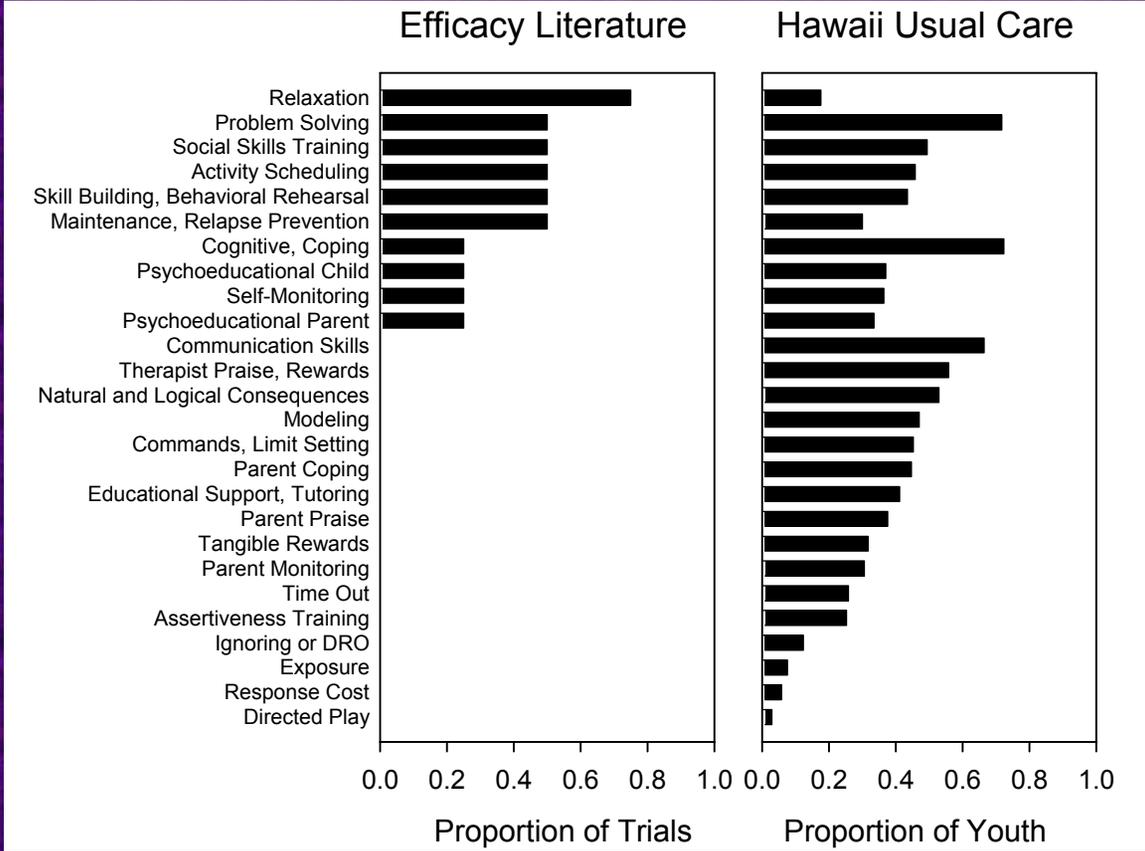
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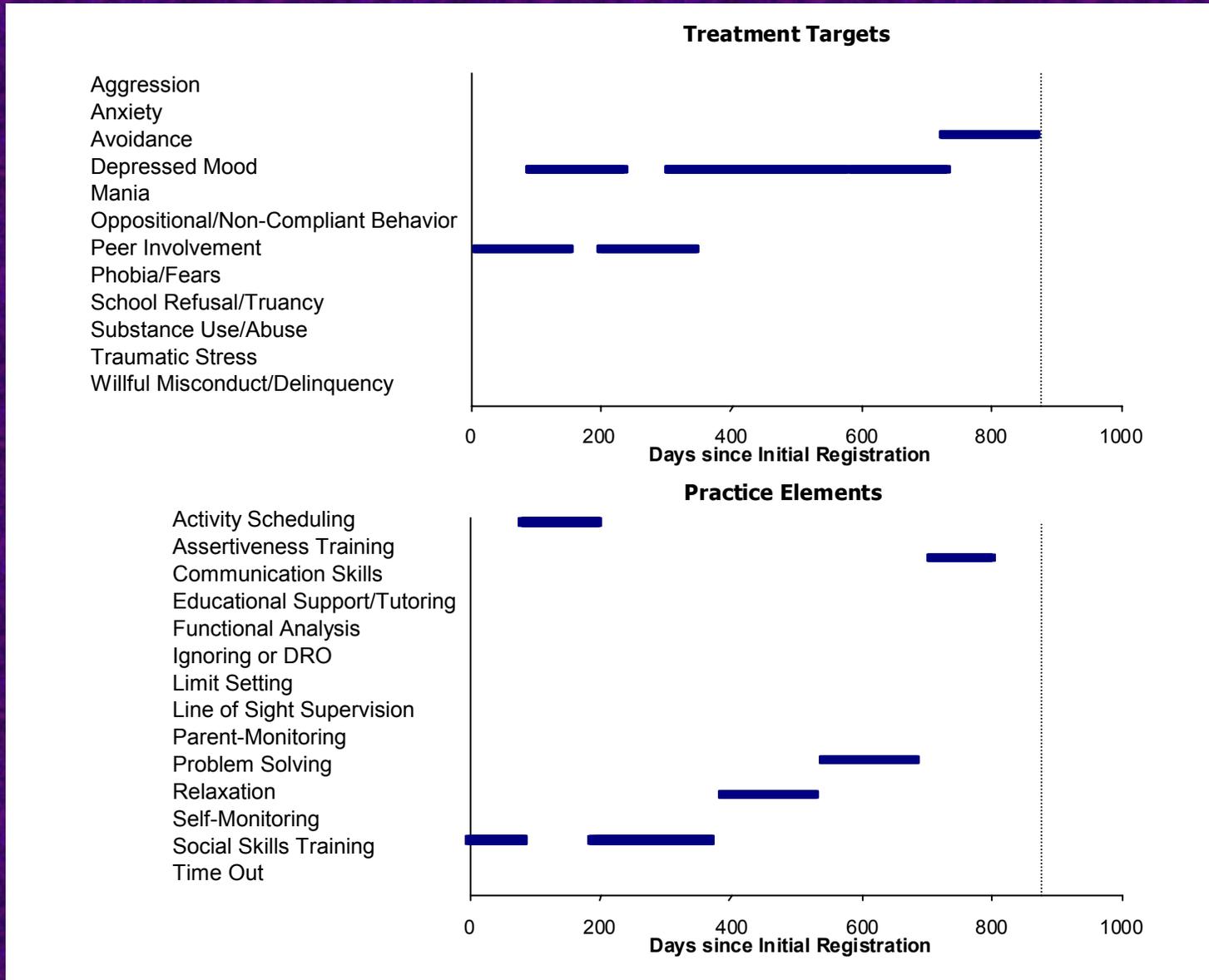
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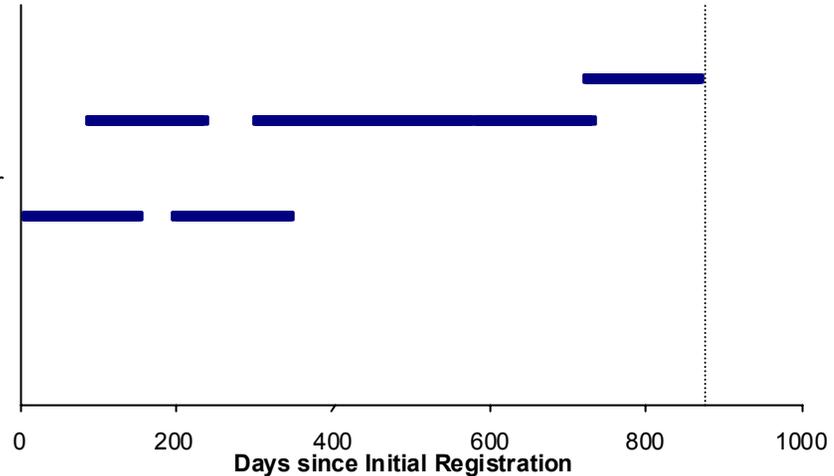
# Reporting Examples



# Reporting Examples

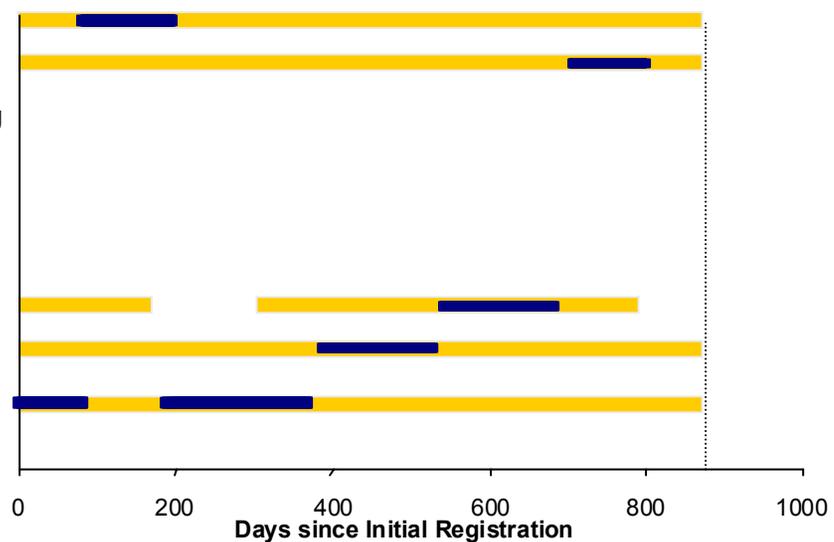
## Treatment Targets

- Aggression
- Anxiety
- Avoidance
- Depressed Mood
- Mania
- Oppositional/Non-Compliant Behavior
- Peer Involvement
- Phobia/Fears
- School Refusal/Truancy
- Substance Use/Abuse
- Traumatic Stress
- Willful Misconduct/Delinquency



## Practice Elements

- Activity Scheduling
- Assertiveness Training
- Communication Skills
- Educational Support/Tutoring
- Functional Analysis
- Ignoring or DRO
- Limit Setting
- Line of Sight Supervision
- Parent-Monitoring
- Problem Solving
- Relaxation
- Self-Monitoring
- Social Skills Training
- Time Out

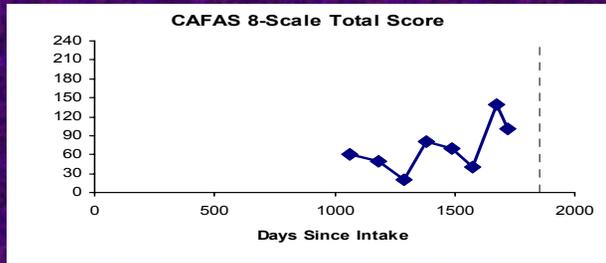


# Benefits of Core Elements Approach

- Compatible with formal intervention deployment
- Allows for review of existing practice array
- Reduced training demands
- Reduced demands on practitioners

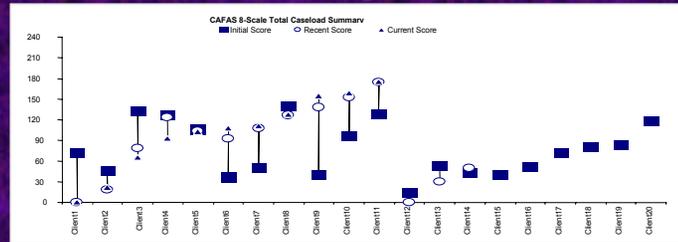
# Outcome Reporting

## Clinical Reporting Individual



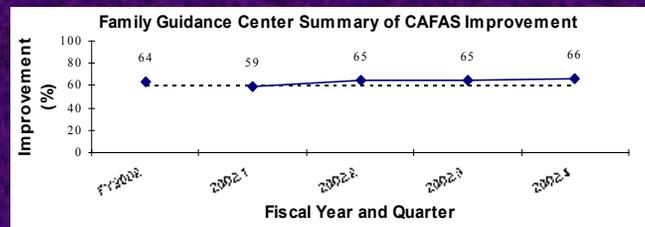
Data  
Roll-Up  
→

## Care Coordinator/Supervisor Caseload

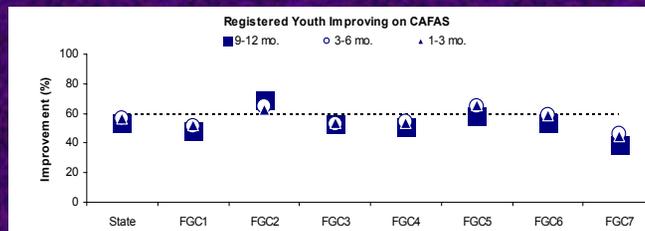


## Child Improvement Rates

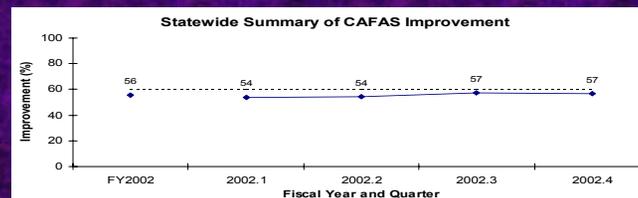
Unit  
Summary

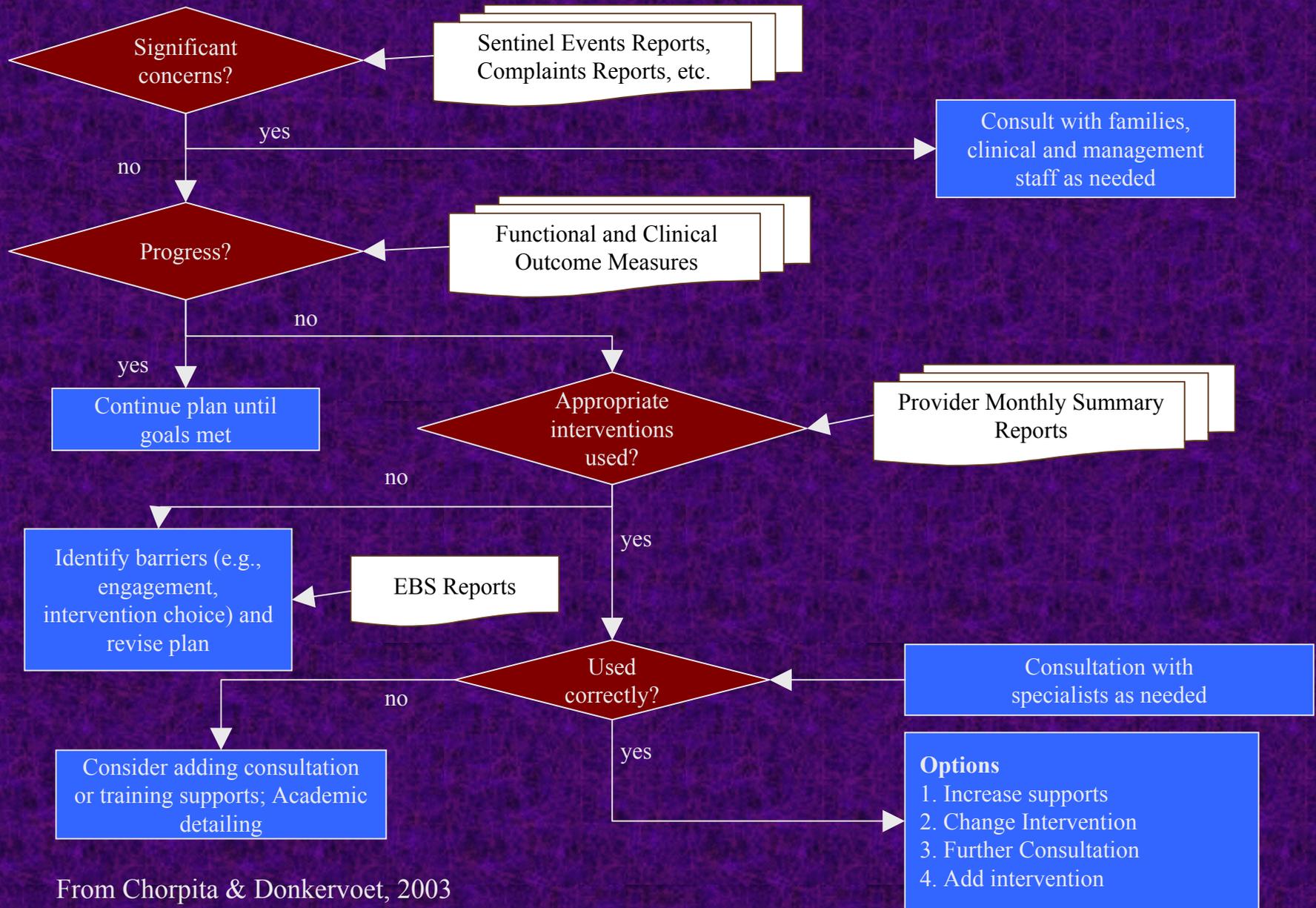


Unit  
Comparison



Overall  
Summary





From Chorpita & Donkervoet, 2003

# Training Initiative

- Provider training in core elements of practice
- Reduced demand from multiple protocols to a family of core techniques

# Training Initiative

- Case management training
- How to identify core elements as part of service plan
- Knowing what to ask families for provider accountability

# Outcomes (1999 to 2003)

- Over 9,000 youth registered
- \$96 million to \$67 million
- From chance to 65% improvement
- 96% of youth served in home or community

Questions?

# Contacts

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