The Society for Clinical Child and Adolescent Psychology (SCCAP): Initiative for Dissemination of Evidence-based Treatments for Childhood and Adolescent Mental Health Problems

With additional support from Florida International University and The Children's Trust.

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Keynote

Evidence-based Approaches for Children with Anxiety Problems

Wendy Silverman, Ph.D.
Professor of Psychology and Director of Clinical Training
Director, Child Anxiety and Phobia Program
Florida International University

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Acknowledgments

FIU Faculty: Jim Jaccard, Bill Kurtines

Past Post docs: Steve Berman (UCF), Golda Ginsburg (Johns Hopkins), Brian Rabian (Penn State), Andreas Dick-Niederhauser (Bern, Switzerland)

Current Post docs: Carla Marin, Yasmin Rey

Current FIU graduate students: Ayce CiCi-Goltkun, Jessica Dahan, Cristina Del Busto, Irina Fredricks, Devi Hausman, Maria Pienkowski, Ileana Hernandez, Luci Motoca,

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Talk Overview

- Why treat anxiety disorders in children and adolescents?
- Description of the EBT for anxiety
- Main characteristics of the research
- Comparative trials:
  - ICBT vs Waitlist
  - GCBT vs Waitlist
  - ICBT vs Parent involvement in ICBT

Talk Overview (cont.)

- Long term follow-up effects
- Comparative trials moving beyond waitlists
- Comparative CBT and drug trials
- Why treatment works? (Outcome-Mediation Trials)
- Effectiveness trials
- Conclusions

Primary Goal

- Highlight the progress, while acknowledging there is much room for improvement and much remains unknown

- Additional research required, both efficacy and effectiveness trials, with each informing the other

DSM-IV Anxiety Disorders

- Other disorders of Infancy, Childhood, or Adolescence
  - Separation Anxiety Disorder*

- Anxiety Disorders
  - Specific Phobia*
  - Social Phobia (Social Anxiety Disorder)*
  - Generalized Anxiety Disorder*
  - Obsessive-Compulsive Disorder
  - Posttraumatic Stress Disorder
  - Panic Disorder with Agoraphobia
  - Panic Disorder without Agoraphobia
  - Agoraphobia without History of Panic Disorder

Prevalent disorders

Anxiety disorders of childhood and adolescence are one of the most, if not *the* most prevalent problems.

Rates hover around 10% in community populations.

Yet, less likely to be identified and referred than externalizing disorders.

Impairing disorders

- Family
- Friends
- School
- Personal Distress

Non-remitting disorders, possible gateway to other conditions

Specific phobia
Separation anxiety disorder
Social phobia
Generalized anxiety disorder
Panic disorder
Depressive disorder
Substance use disorder

Also, anxiety disorders are associated with suicidal ideation (Carter, Silverman et al., 2008)

Summary reasons for treating anxiety disorders in youth

- Quiet distress and significant impairment
- Do not remit with time
- "Gateway" to other disorders including anxiety disorders, dysthymia/depression, and substance use/abuse problems

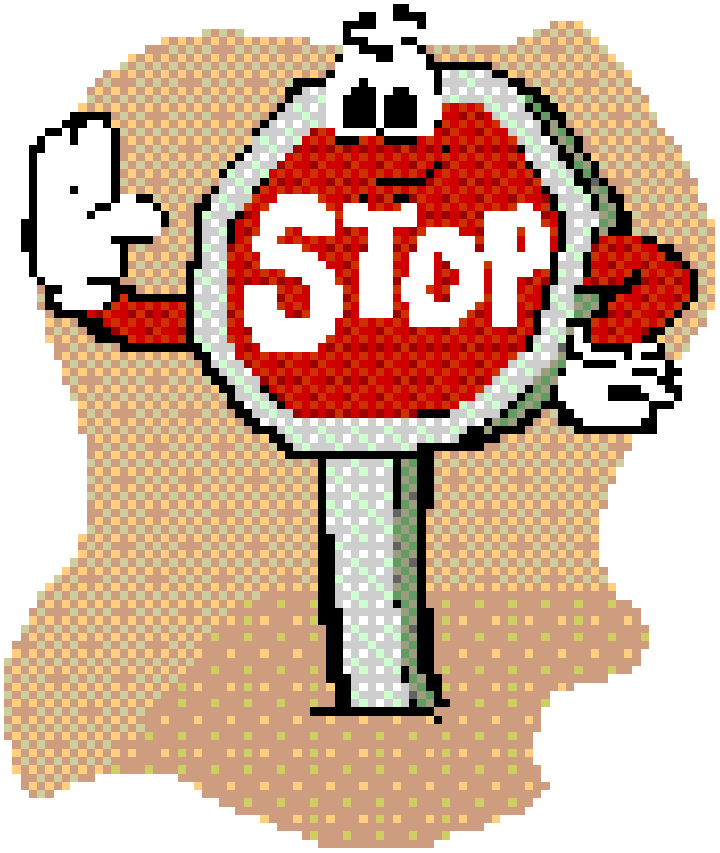
EBT research for child and adolescent anxiety disorders

- Over 25 randomized controlled clinical trials have been conducted.

- Cognitive Behavioral Treatment (CBT)

Cognitive Behavioral Treatment of Anxiety Disorders in Youth

- Behavioral: practice exposure tasks in session and out of session, positive consequences for successful efforts (rewards)
- Cognitive: concern with information processing, self statements
- Emotional: addresses feelings
- Social: can involves parents and/or peers



Scared?

Thoughts

Other thoughts or Other things I can do

Praise

Youth Anxiety EBT Research

- Clinic referred participants from schools & community
- Randomization of participants
- Most common diagnoses targeted: GAD, SOP, SAD
- Semi-structured diagnostic procedures (ADIS-C/P; Silverman & Albano, 1996) (dx reliability)
- Multisource, multimethod assessments

Youth Anxiety EBT Research (cont.)

- Protocolized treatments (about 12 to 16 sessions)
- Treatment integrity (sessions taped and checked)
- Treatment credibility and expectancy ratings
- Well trained and carefully supervised therapists
- Systematic followup procedures
- Majority used waitlist designs

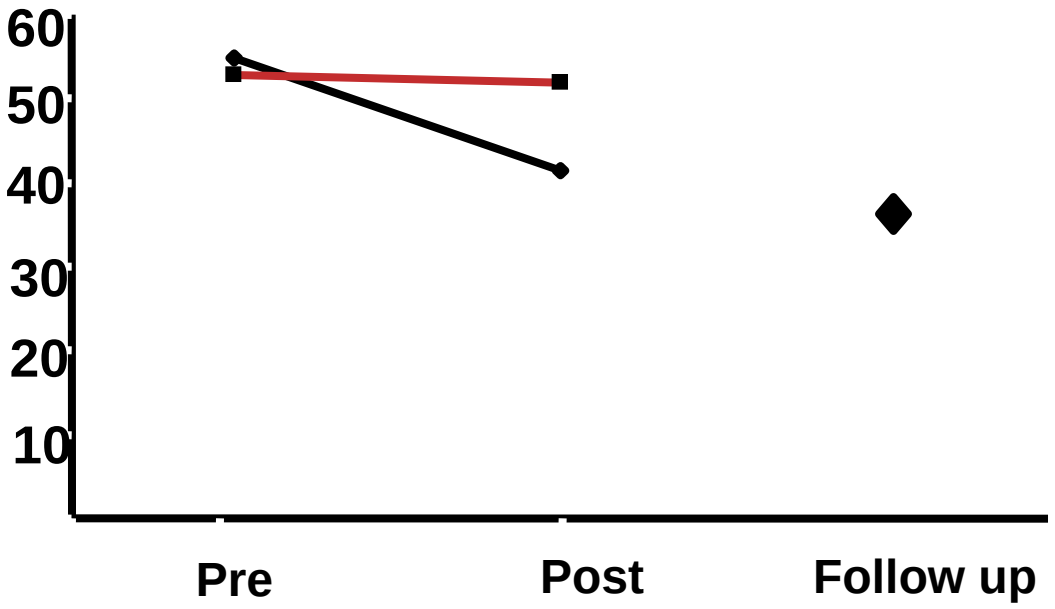
Improvements found when comparing individual CBT vs waitlist; & group CBT vs waitlist?

- Clinician ratings
- Diagnostic recovery rates (60 to 80% - still room for improvement)
- Youth self ratings of anxiety (generally medium effect sizes)

Improvements found when comparing individual CBT vs waitlist; & group CBT vs waitlist? (cont.)

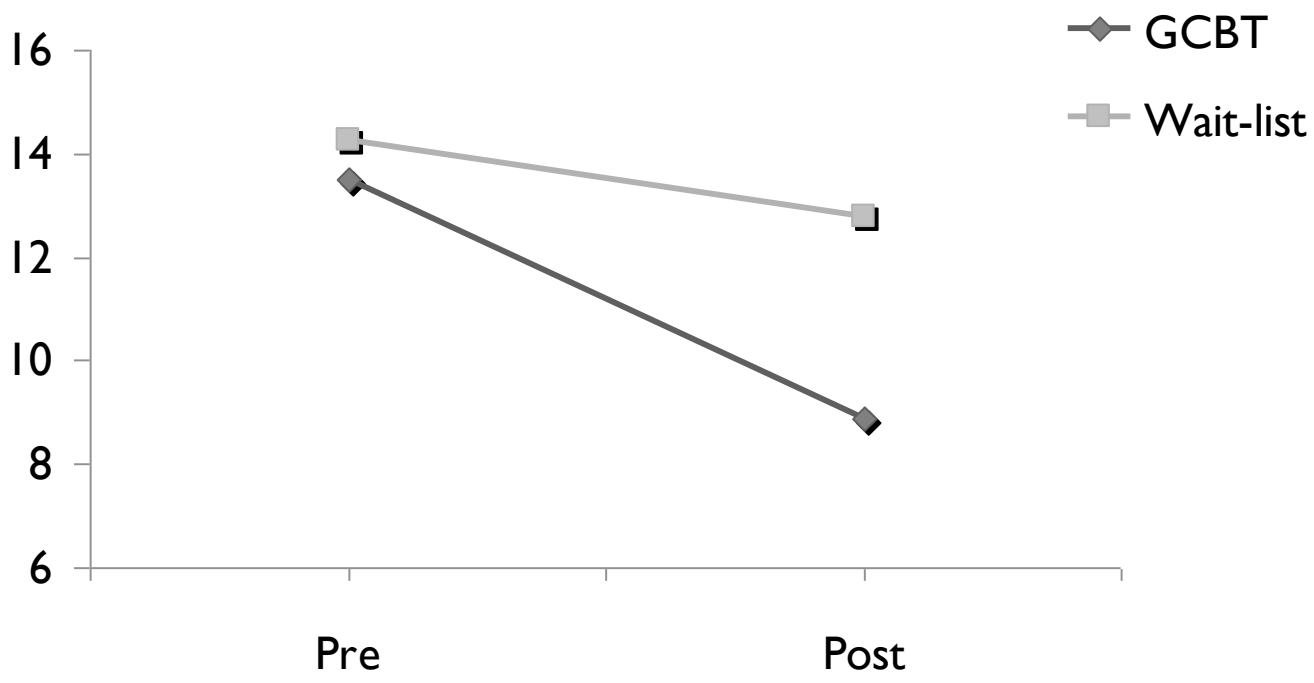
- Parent (and teacher) ratings of youth anxiety
- Youth self ratings of coping (Kendall)
- Behavioral observations
- Normative comparisons (return from deviant to nondeviant limits on CBCL)

ICBT: Child Rated Anxiety



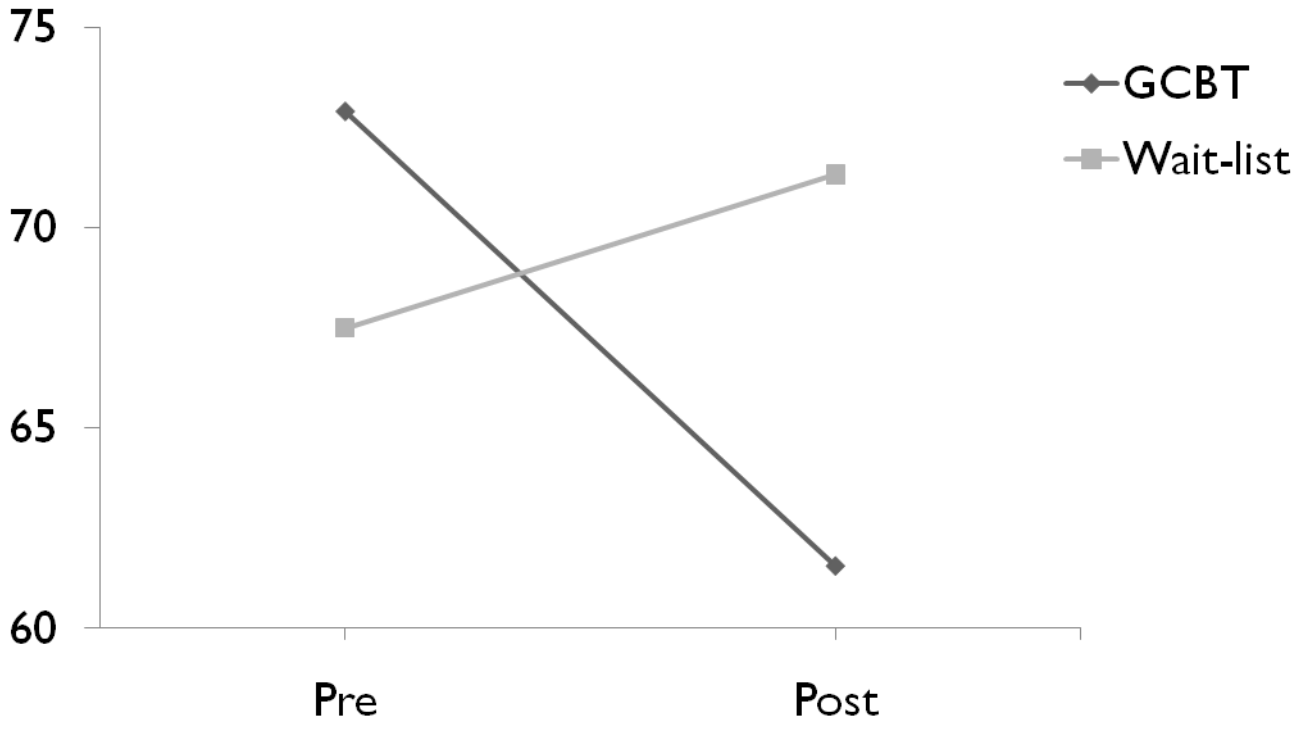
From Kendall (1994)

GCBT: Child Rated Anxiety



Silverman et al. (1999a). *JCCP.*

GCBT: Parent Rated Child Internalizing



Silverman et al. (1999a). *JCCP.*

What about with minority samples?

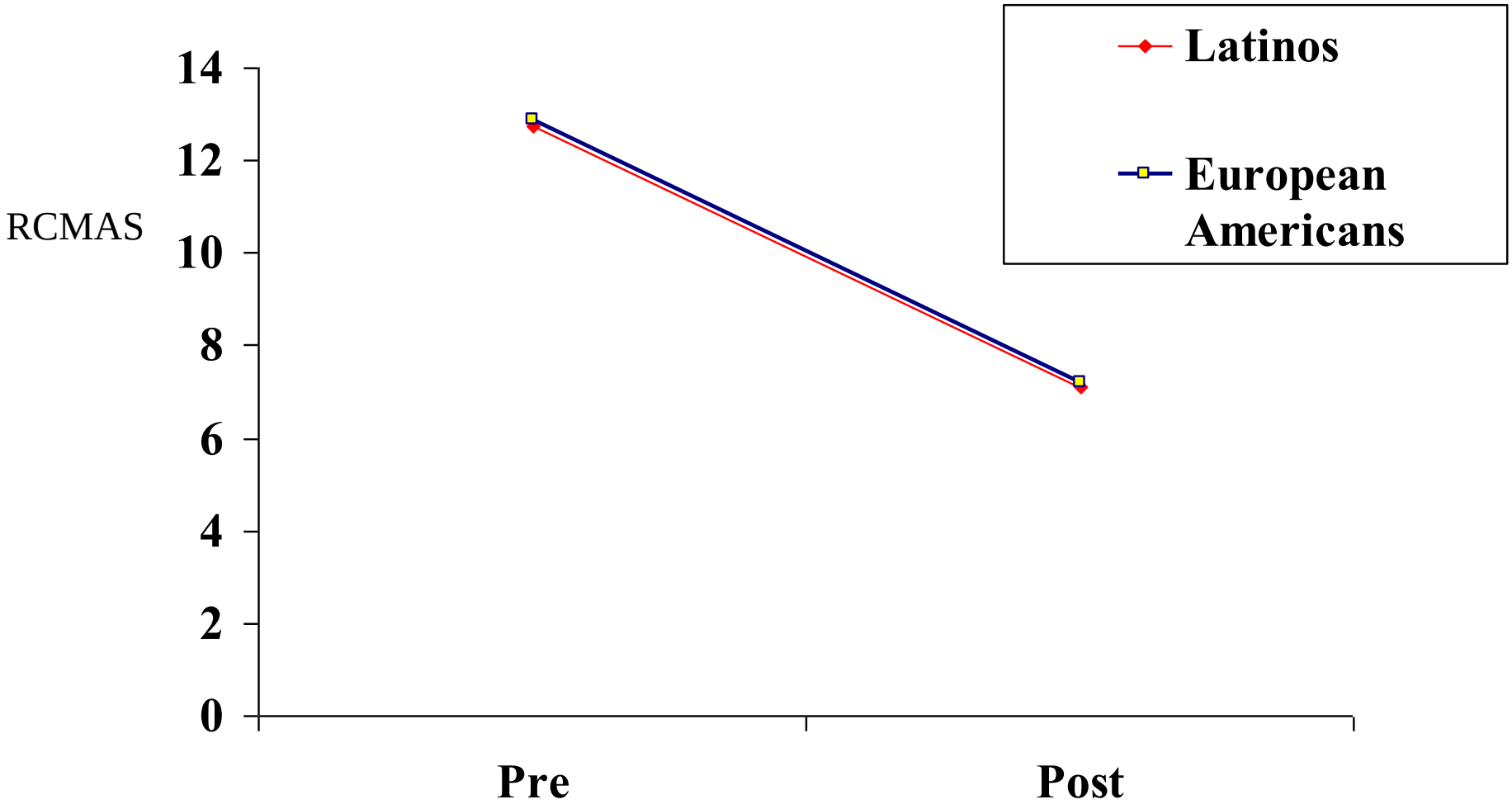
FIU Samples about:

- Latinos 80%
- European-Americans 20%

(no significant differences by child sex or age)

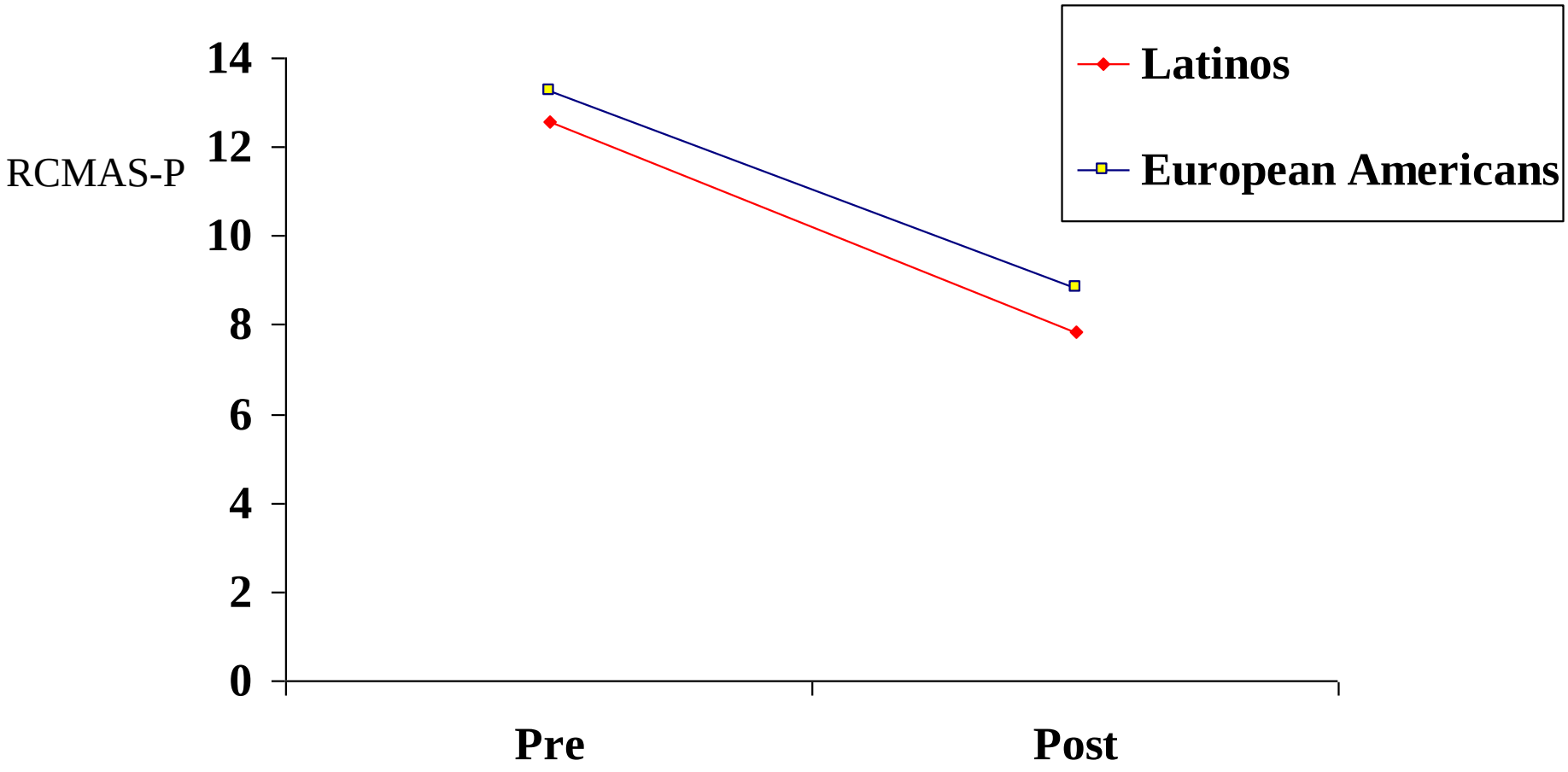
- Rey, Silverman et al. (in prep), extending Pina, Silverman, et al. JCCP (2003)

Child Rated Anxiety



- Rey, Silverman et al. (in prep)

Parent Rated Child Anxiety



- Rey, Silverman et al. (in prep)

Implications

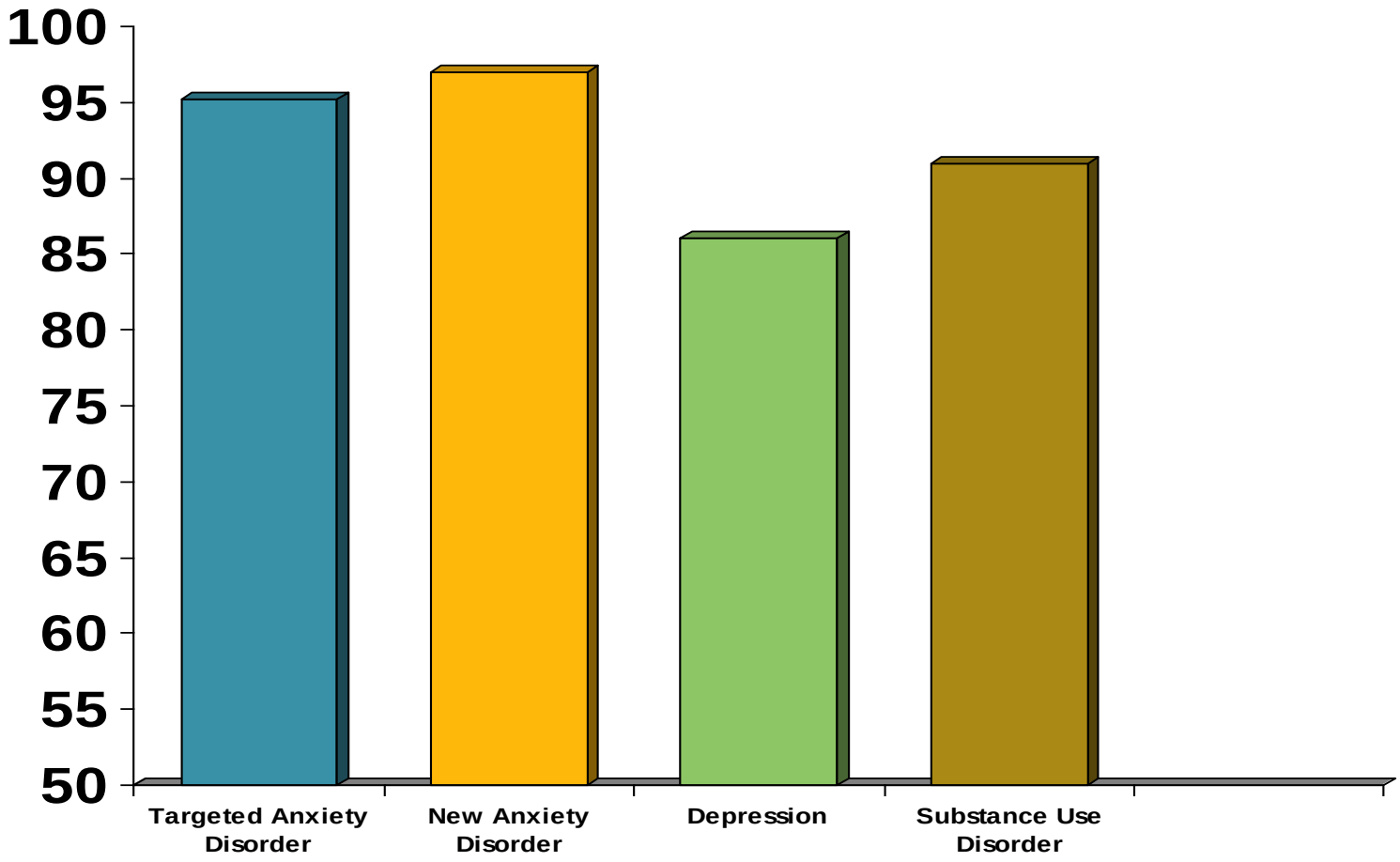
- Supports use of CBT with acculturated, English speaking largely Cuban American children and families

- Other subgroups? More evaluations needed

What about long term effects (5 to 8 years posttreatment)?

- Barrett et al., 2001
- Beidel et al., 2006
- Kendall et al., 2004
- Saavedra, Silverman, et al., 2010

Diagnostic Recovery Rates at Long-Term Follow-up



- Saavedra, Silverman, et al., 2010; J. Child Psychology and Psychiatry

Findings across four follow-up studies consistent

- Along several clinical indices, support for long-term effects of CBT for anxious youth.

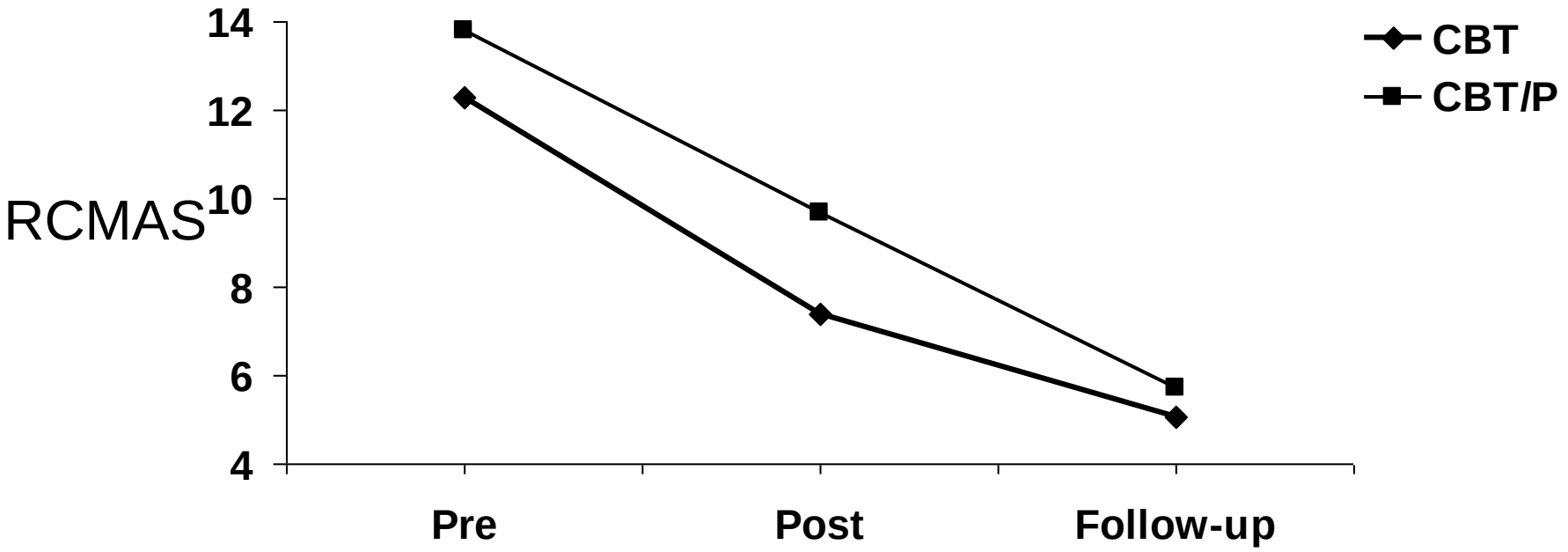
- Important limitation: **All studies lacked control groups that followed untreated anxious youth**

What is known when it comes to involving parents?

- Across about 15 studies, there is a failure to demonstrate consistent parent enhancing effects relative to ICBT

- Also shown through meta-analyses (Barmish & Kendall, 2003; Silverman et al., 2008; Spielmans et al., 2007)

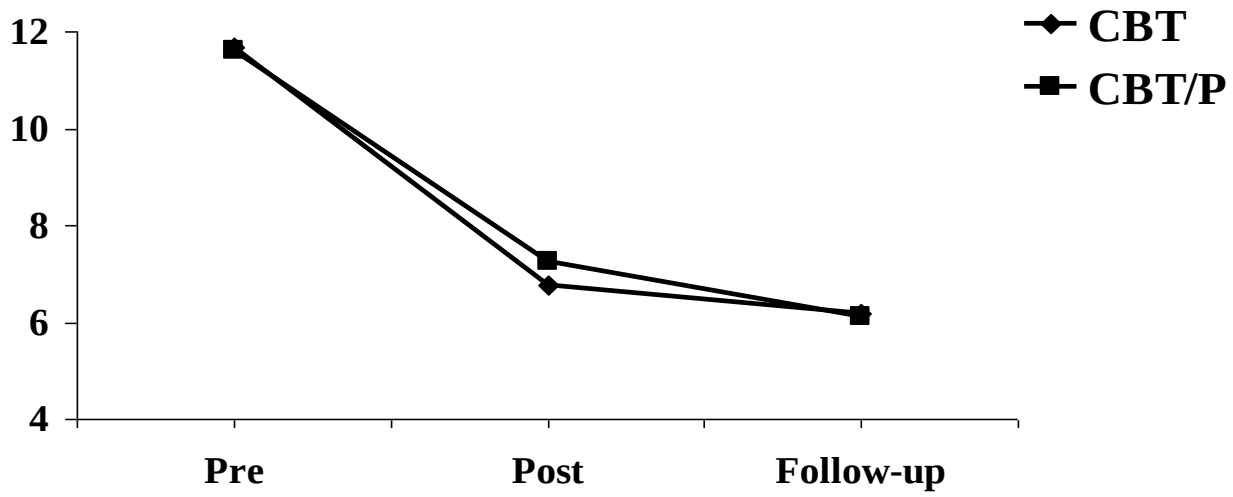
Child Rated Anxiety



(Silverman et al., 2009, JCCP)

Parent Rated Child Anxiety

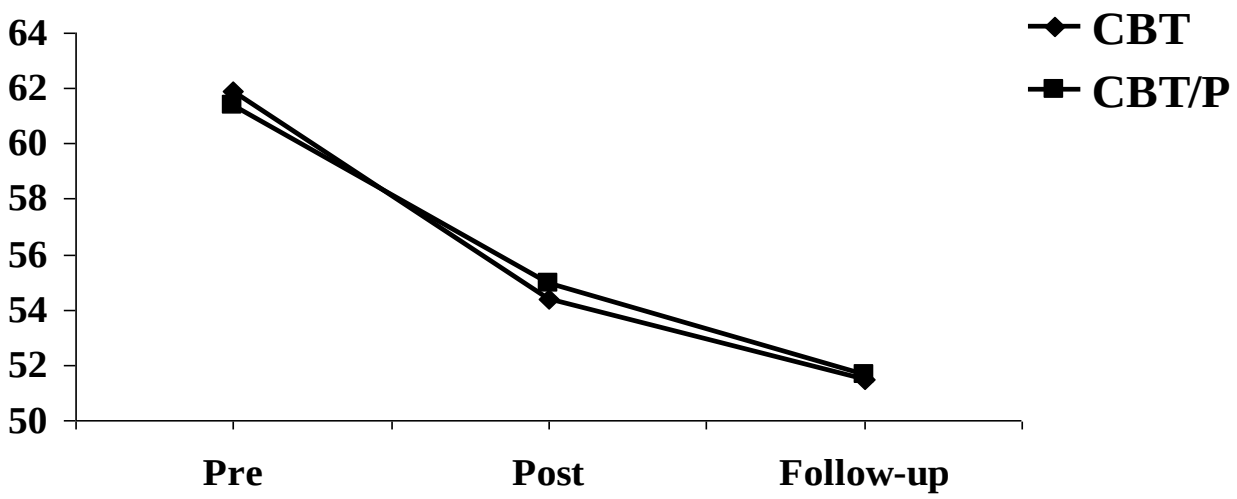
RCMAS/P



(Silverman et al., 2009, JCCP)

Parent Rated Child Internalizing

CBCL/I



(Silverman et al., 2009, JCCP)

Recap

- ICBT > Waitlists
- GCBT > Waitlists
- Inconsistent evidence that involving parents in ICBT enhances ICBT effects

What do we know when we compare CBT to active, credible control condition?

One of the first controlled study with children diagnosed with phobic disorder

- Behavioral - Teaching parents child management skills to facilitate exposure

vs.

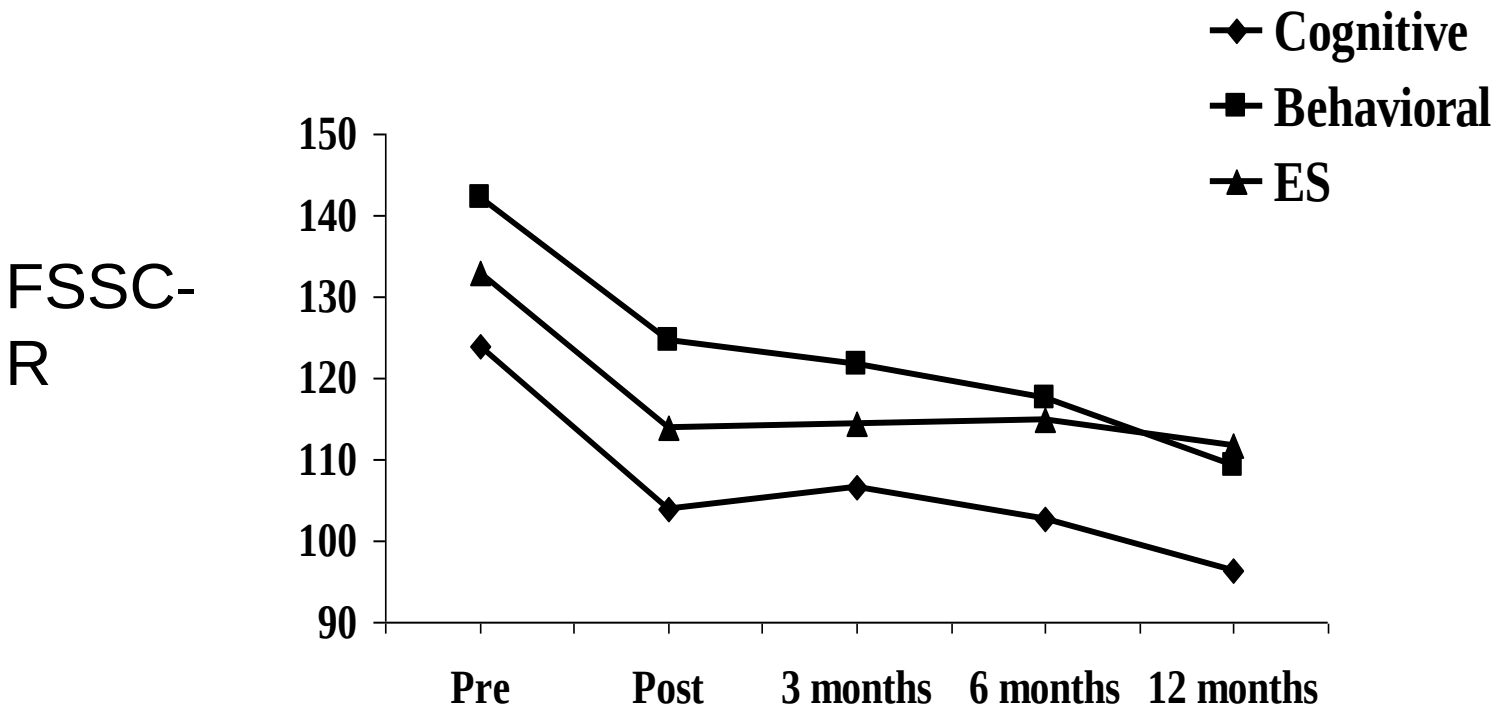
- Cognitive - Teaching children self control skills to facilitate exposure

vs.

- Education Support - No prescribed exposure, no skills training

Silverman et al. (1999), *JCCP.*

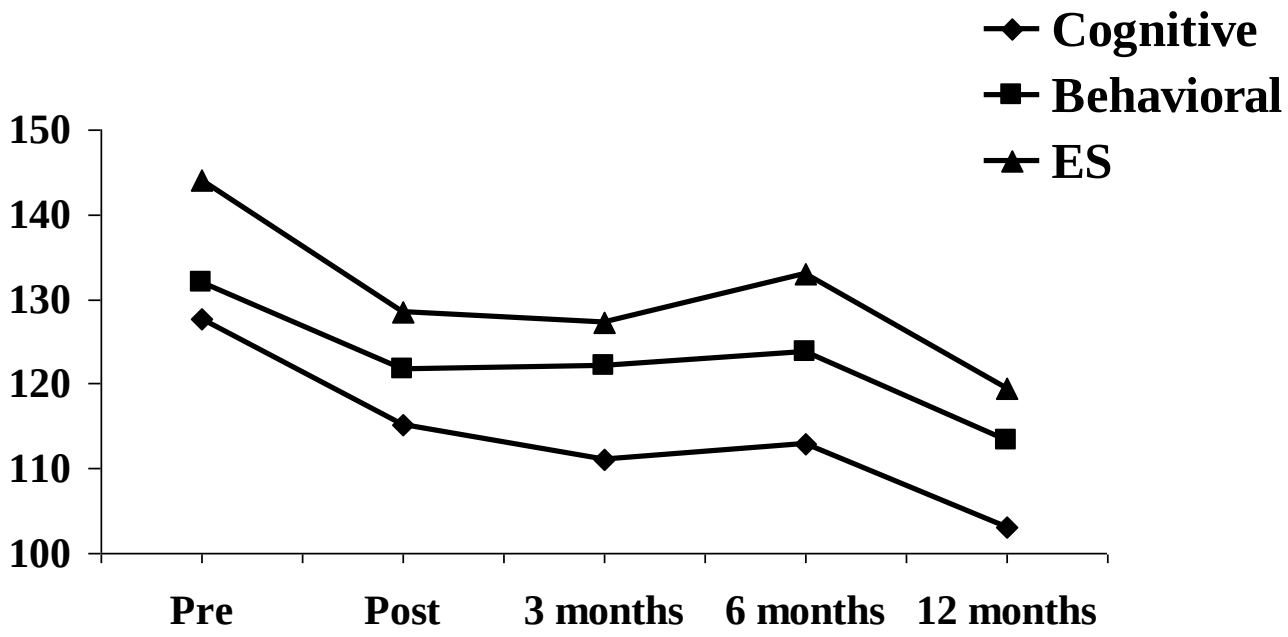
Child Rated Fear



Silverman et al. (1999), *JCCP.*

Parent Ratings of Child Fear

FSSC-R-P



Silverman et al. (1999), *JCCP.*

9-Year-Old Boy - Dogs

Other studies have produced similar equivocal findings re superiority of CBT over Education Support (ES)

- Last et al. (1998) – CBT vs ES for "school phobia" –
  - No significant differences between conditons.
  - Both treatments resulted in children returning to school.

- Kendall et al. (2008) – FCBT vs CBT vs ES
  - No significant differences among conditions on youth, mother, father, and teacher ratings.

- Ollendick et al. (2009) – One Session Treatment for specific phobia vs ES vs WL
  - No significant differences among conditions on child and parent ratings.

Explanations

- Measurement issues
- "Bleeding" – perhaps key procedures of CBT bleed into ES
- But if can produce positive effects simply from "bleeding," then supports notion of 'flexibility with fidelity'
- Highlights the importance of understanding what produces or mediates change (more later).

What do we know when we compare CBT to medication?

Child/Adolescent Anxiety Multimodal Study (CAMS)

- Relative efficacy of medication (sertraline) vs CBT vs Combination vs Placebo

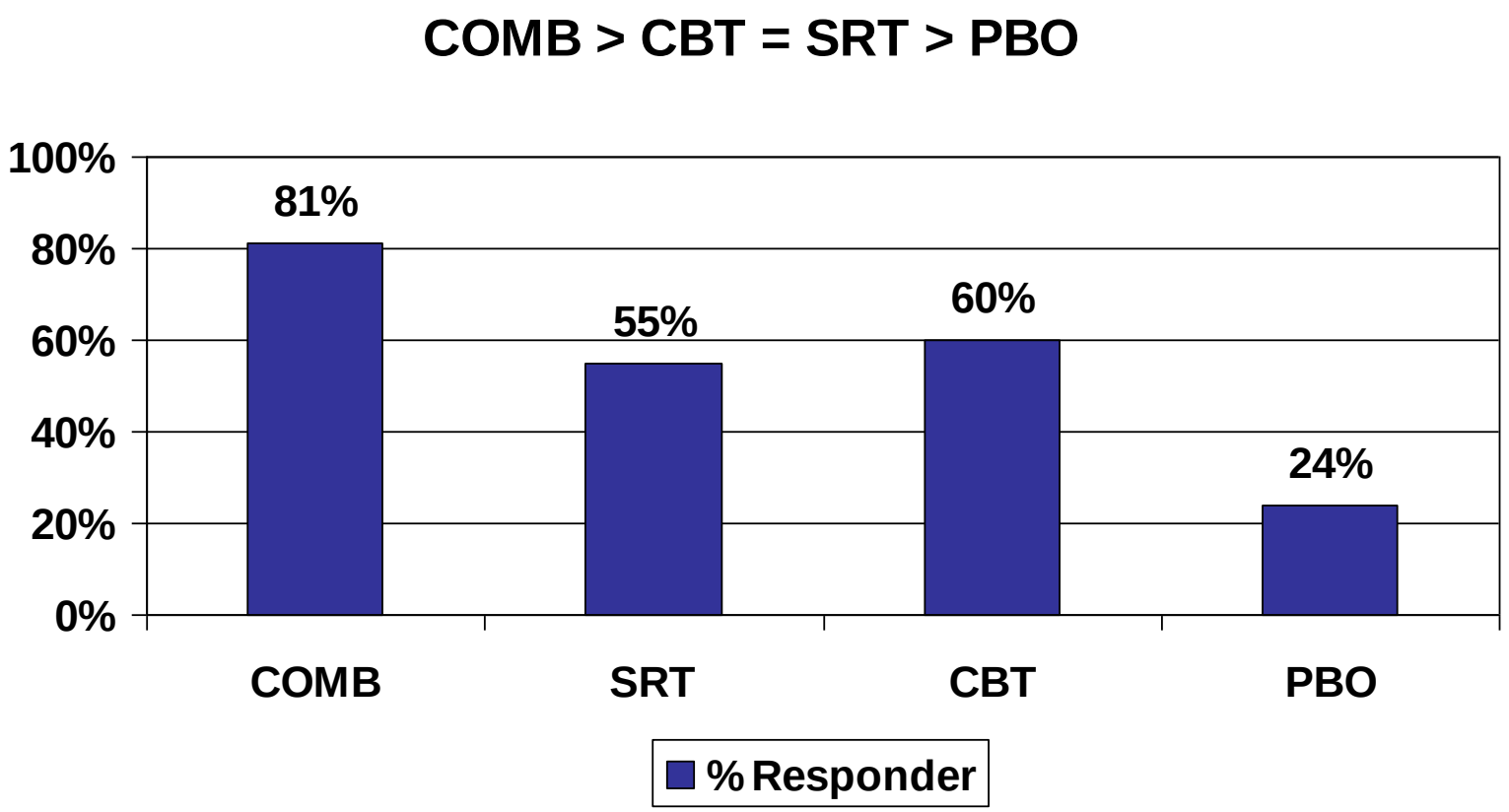
(Walkup et al., 2008)

Study Drop By Treatment Group

Study Drop	Treatment Condition				Total N (%)
	COMB	SRT	CBT	PBO	
Completed	127	110	133	61	431 (88.32)
Dropped Out	13	23	6	15	57 (11.68)
Total	140	133	139	76	488 (100.00)

(Walkup et al., 2008)

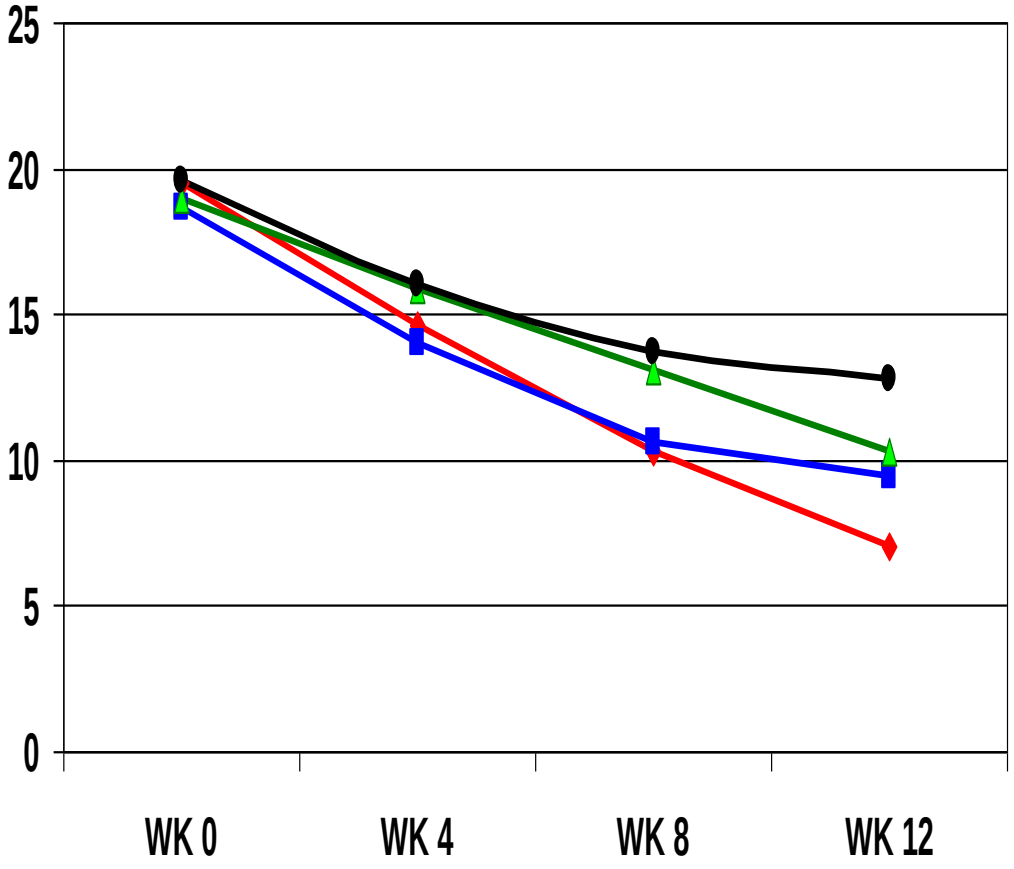
Clinician Global Index of Improvement



(Walkup et al., 2008)

Pediatric Anxiety Rating Scale change over time

COMB>CBT=SRT>PBO



(Walkup et al., 2008)

CAMS Summary

- Consistent results across primary outcomes
  COMB > CBT = SRT > PBO

- CAMS Clinical Implications
  - Three good treatments
  - High quality CBT and Medication treatments are effective
  - COMB offers additional benefit

(Walkup et al., 2008)

Limits

- Parents and children unblinded in COMB treatment
- Limited number of outcomes
- Only pre to post treatment evaluated so far (followup study just beginning)

Limits (cont.)

- Dose effects?
  - ICBT = 14 sessions, 60 min;
  - SRT = 8 sessions, 30 to 60 min
  - Placebo = 8 sessions, 30 to 60 min
  - Combined = 14 sessions, 60 min of ICBT **plus** 8 sessions of SRT, 30 to 60 min

- Sequencing remains unexplored

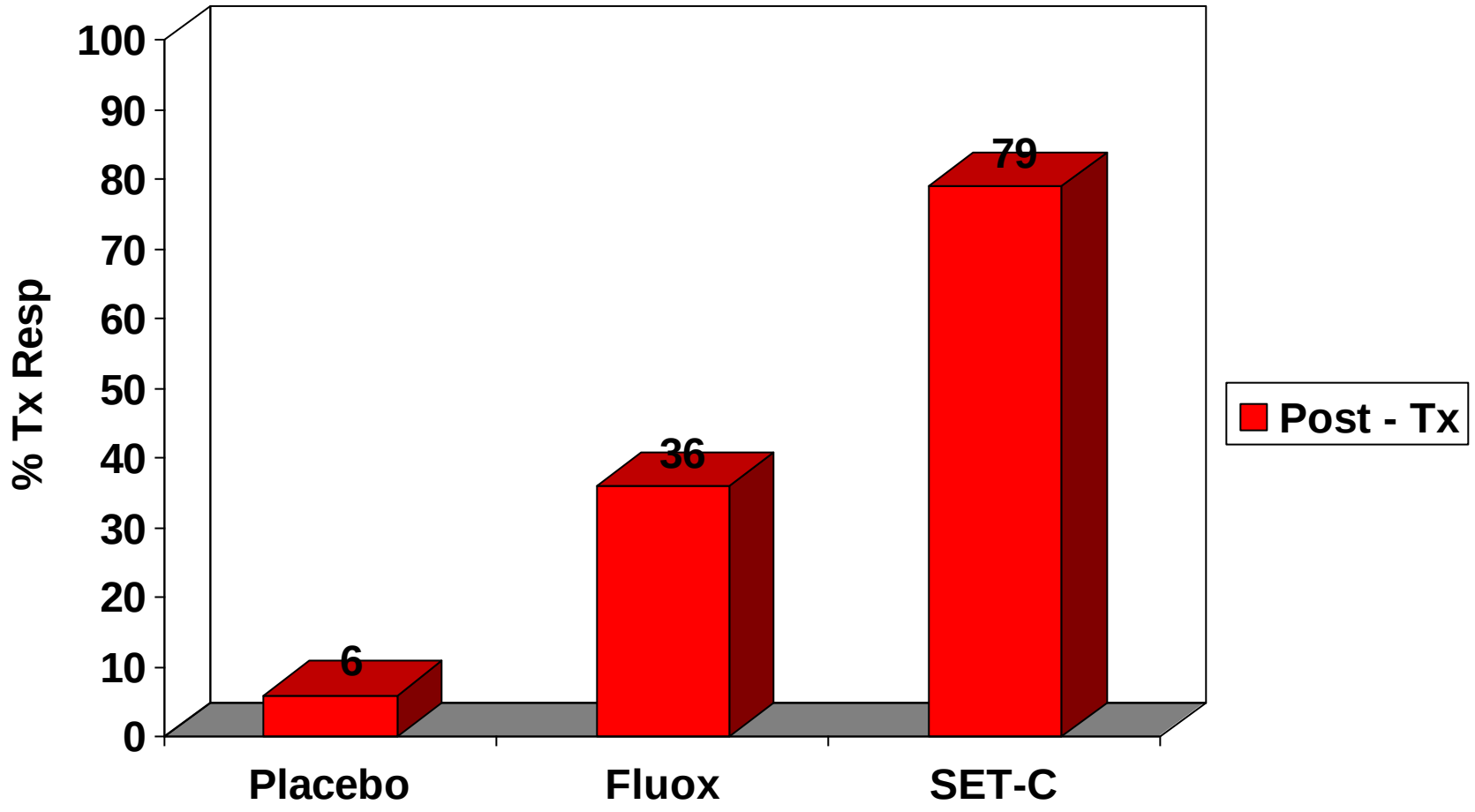
Social Effectiveness Training vs. Fluoxetine vs. Placebo with children with social phobia (N=122)

- SET-C: Individualized exposure sessions, social skills training, peer generalization experiences
- Double blinded
- 13 drop outs after randomization
  - 10 to pill condition

(Beidel et al., 2007)

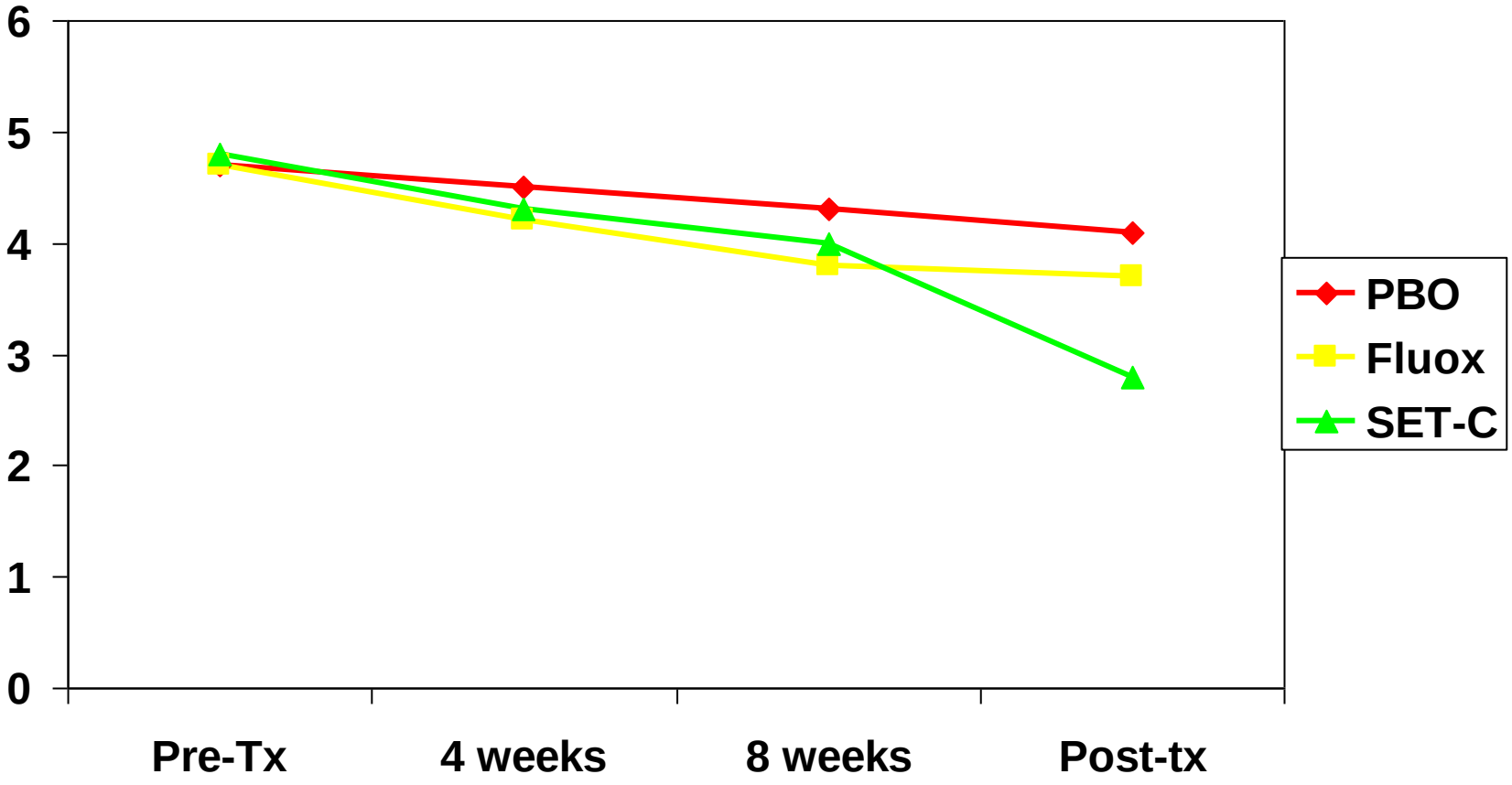
SET-C vs. Fluoxetine vs. Placebo

Clinician Global Index of Improvement



Beidel et al. (2007).

Clinician Global Index of Improvement



Beidel et al. (2007)

Recap

- SET-C > Drug > Placebo on most measures of treatment outcome with youth social anxiety disorder

- Not a combined study so that is still unknown

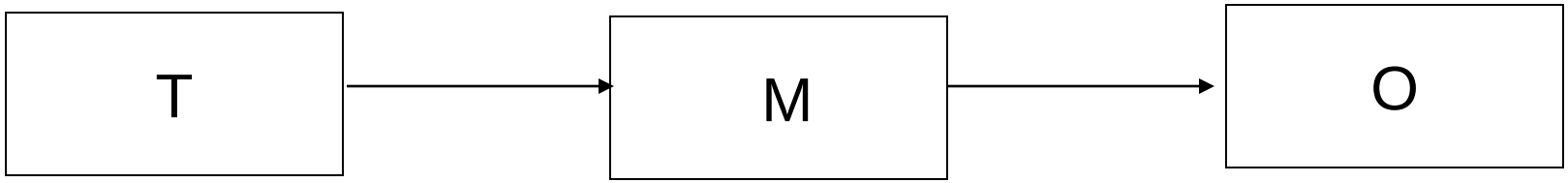
Why important to develop and test theories underlying EBT?

- If we know **how** treatments work then we can emphasize the effective elements and eliminate the redundant or unnecessary elements leading to streamlined treatments

- If we have streamlined treatments then we can more easily train mental health professionals in EBTS

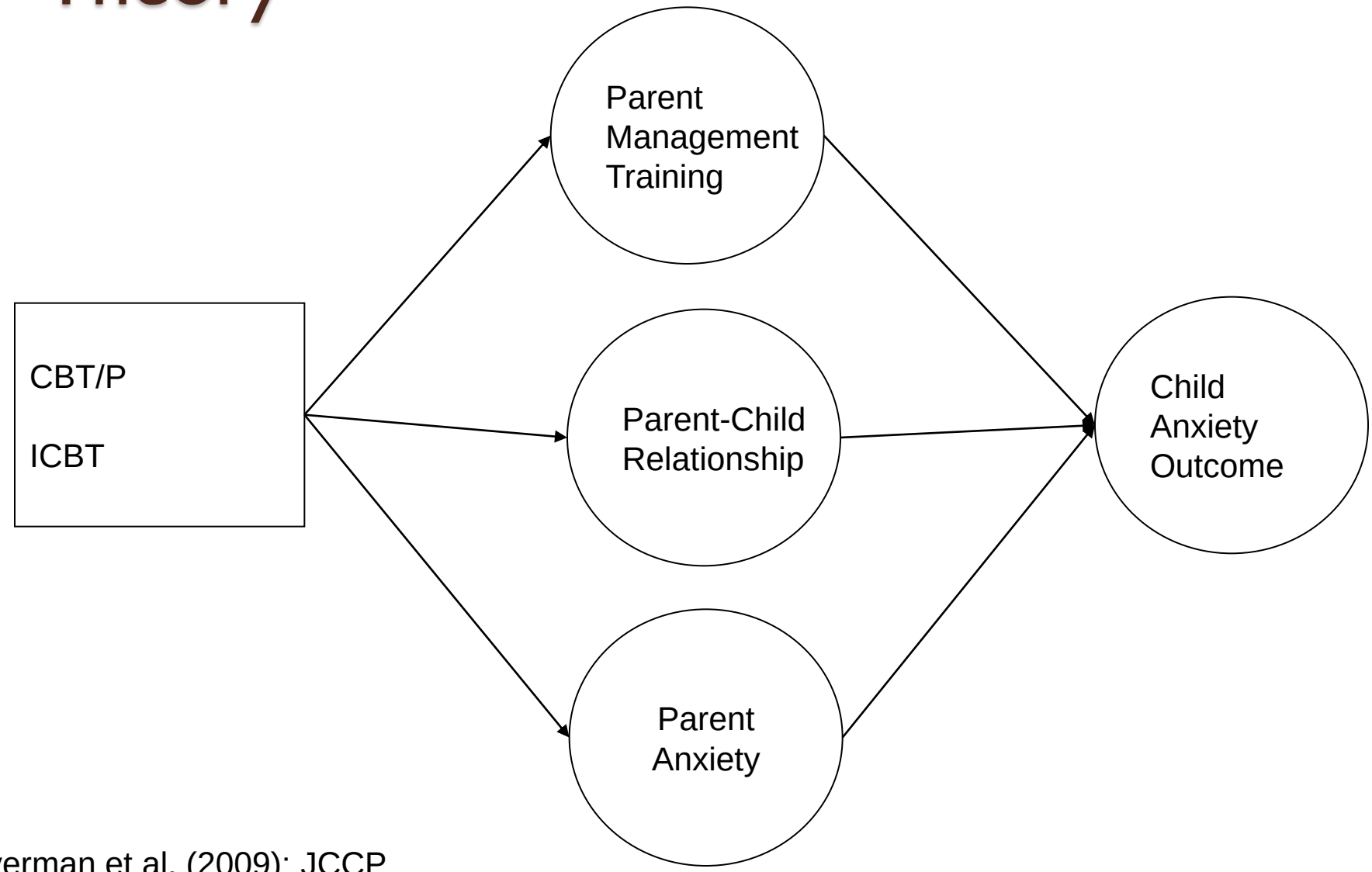
- If we can more easily train mental health professionals in EBTS then more children can potentially receive EBTs

Outcome-Mediation Trials



Mediators suggests how or why Treatment affects Outcome

3-Component Parent Mediator Theory

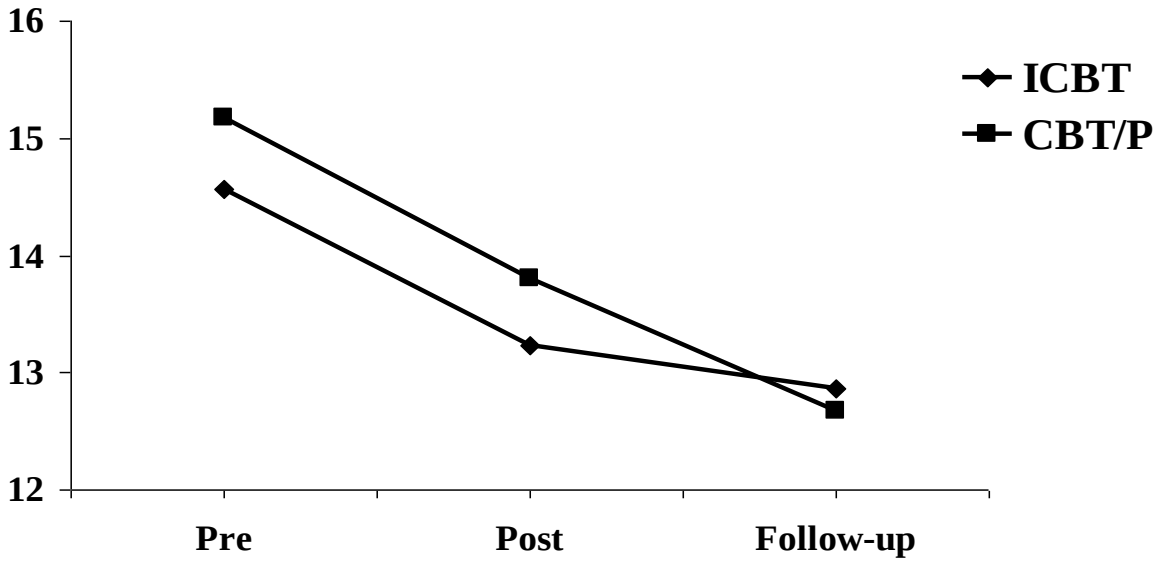


Silverman et al. (2009); JCCP

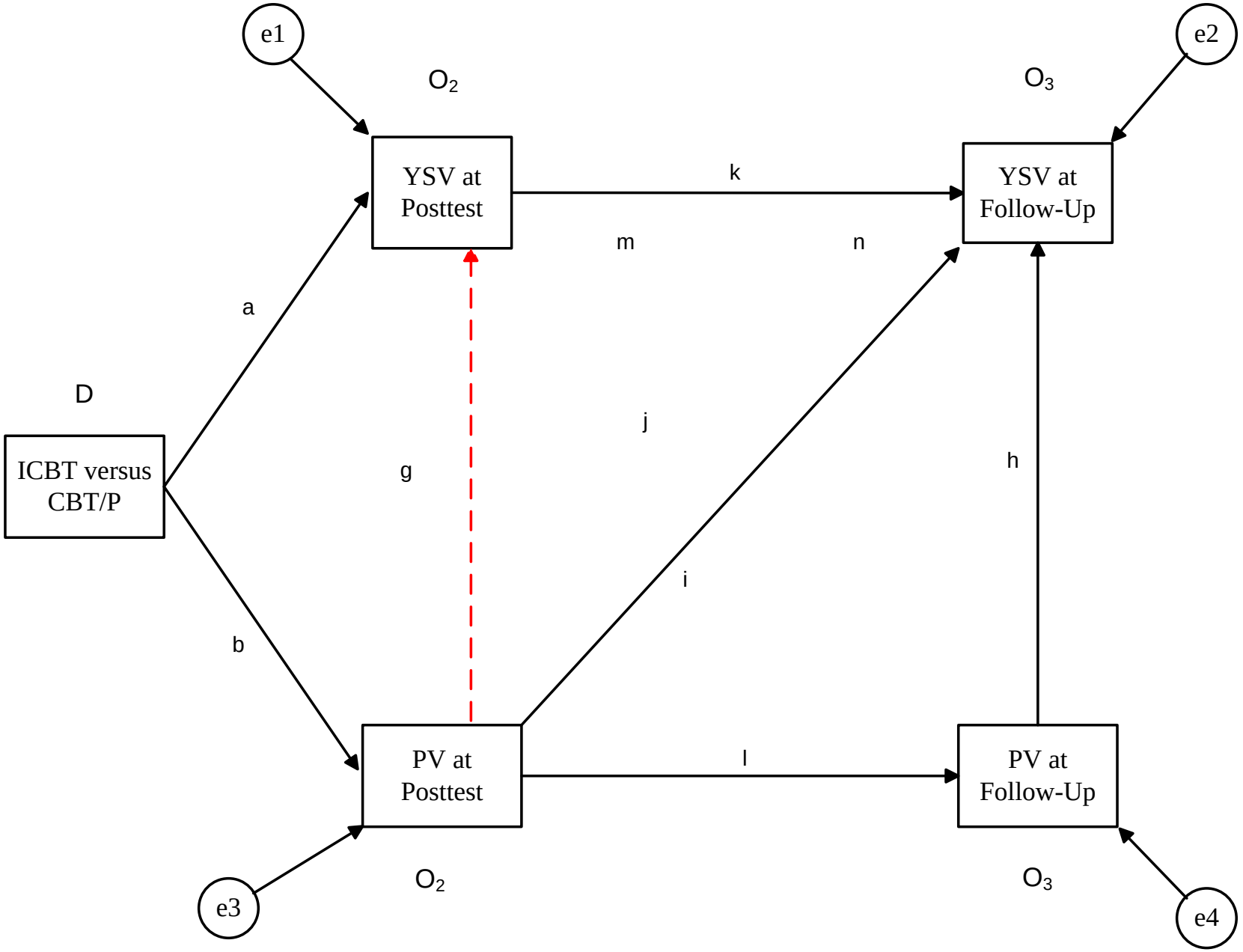
Child Ratings of Parent Behavior

Appraisal of Parent

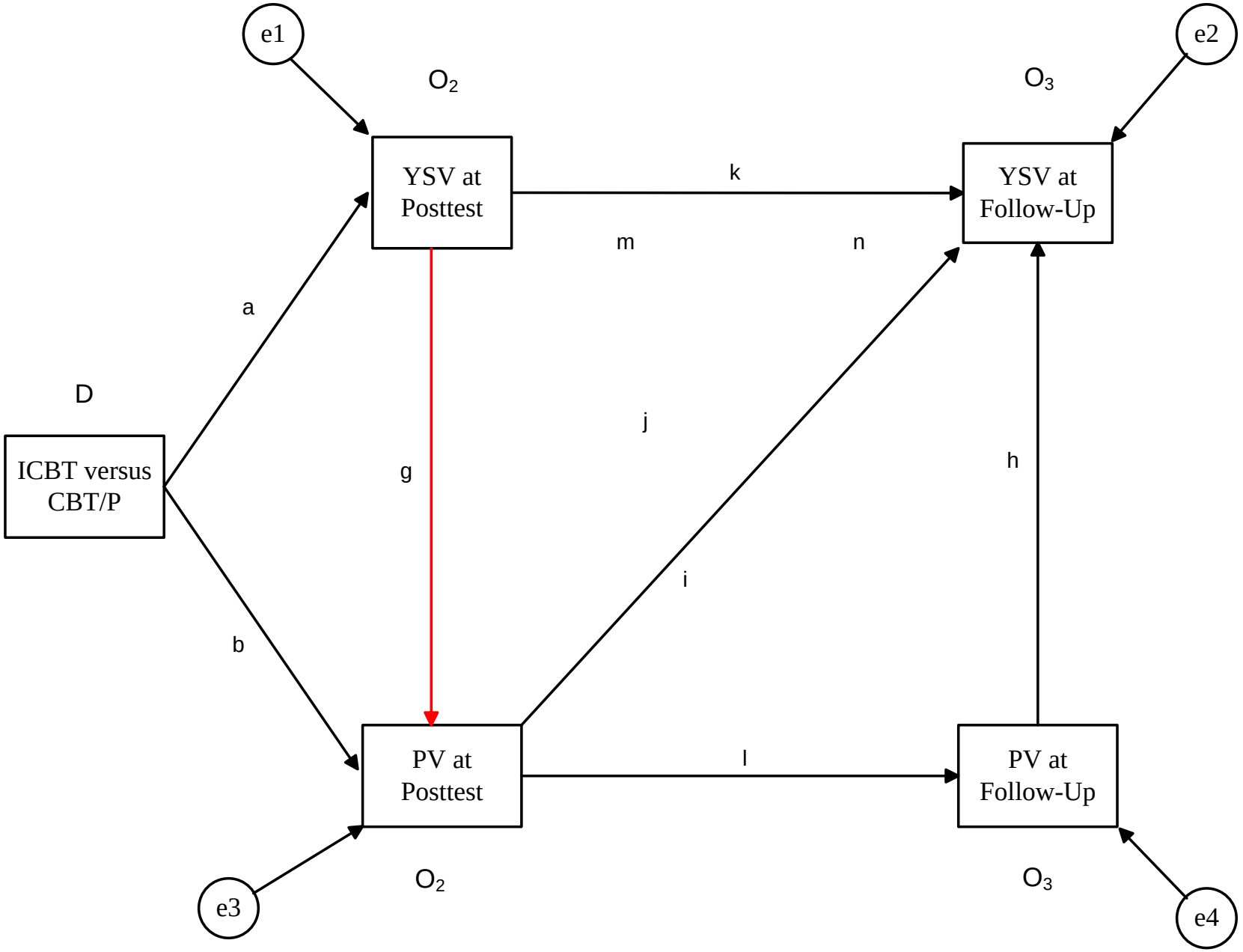
(CBQ-C)



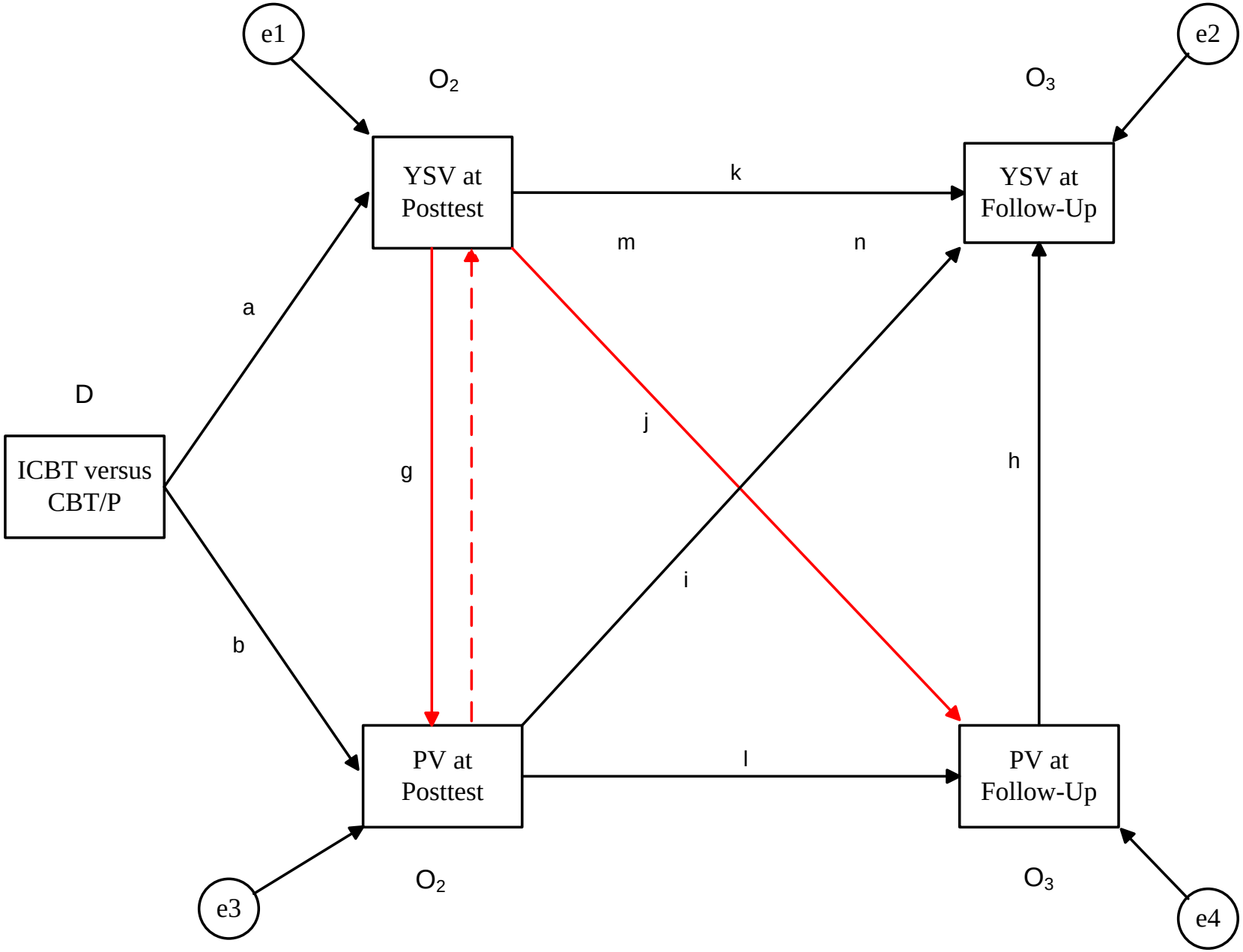
Silverman et al. (2009); JCCP



Silverman et al. (2009); JCCP



Silverman et al. (2009); JCCP



Silverman et al. (2009); JCCP

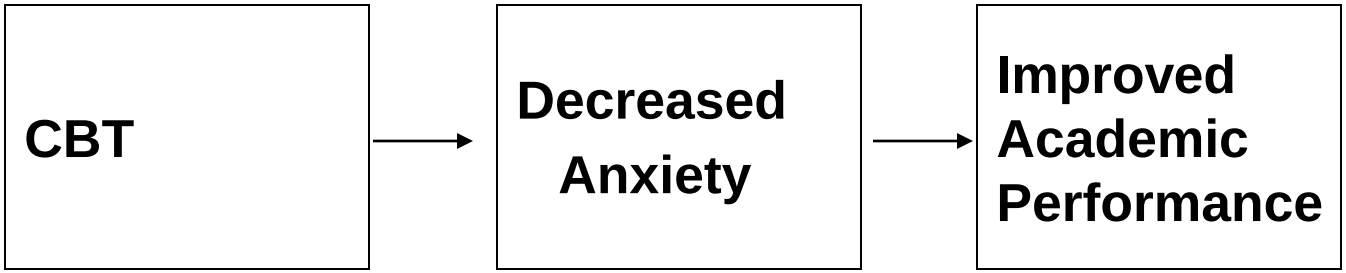
Findings are the first to empirically suggest

- Plausible that as changes occur in children, changes occur in parents
- Not necessarily that as changes occur in parents, changes occur in children
- Preliminary, bidirectional effects also plausible
- Highlights the importance of not accepting common assumptions regarding mediational role of parents in treatment outcome

Two additional "parent as mediator" funded studies

- One just completed
- One in middle of third year
- Both studies use improved measurement strategy
  - Full measures of mediators and outcome
  - Brief measures throughout treatment and follow-ups

Also assessing additional outcomes and turning anxiety into a mediator



Recap

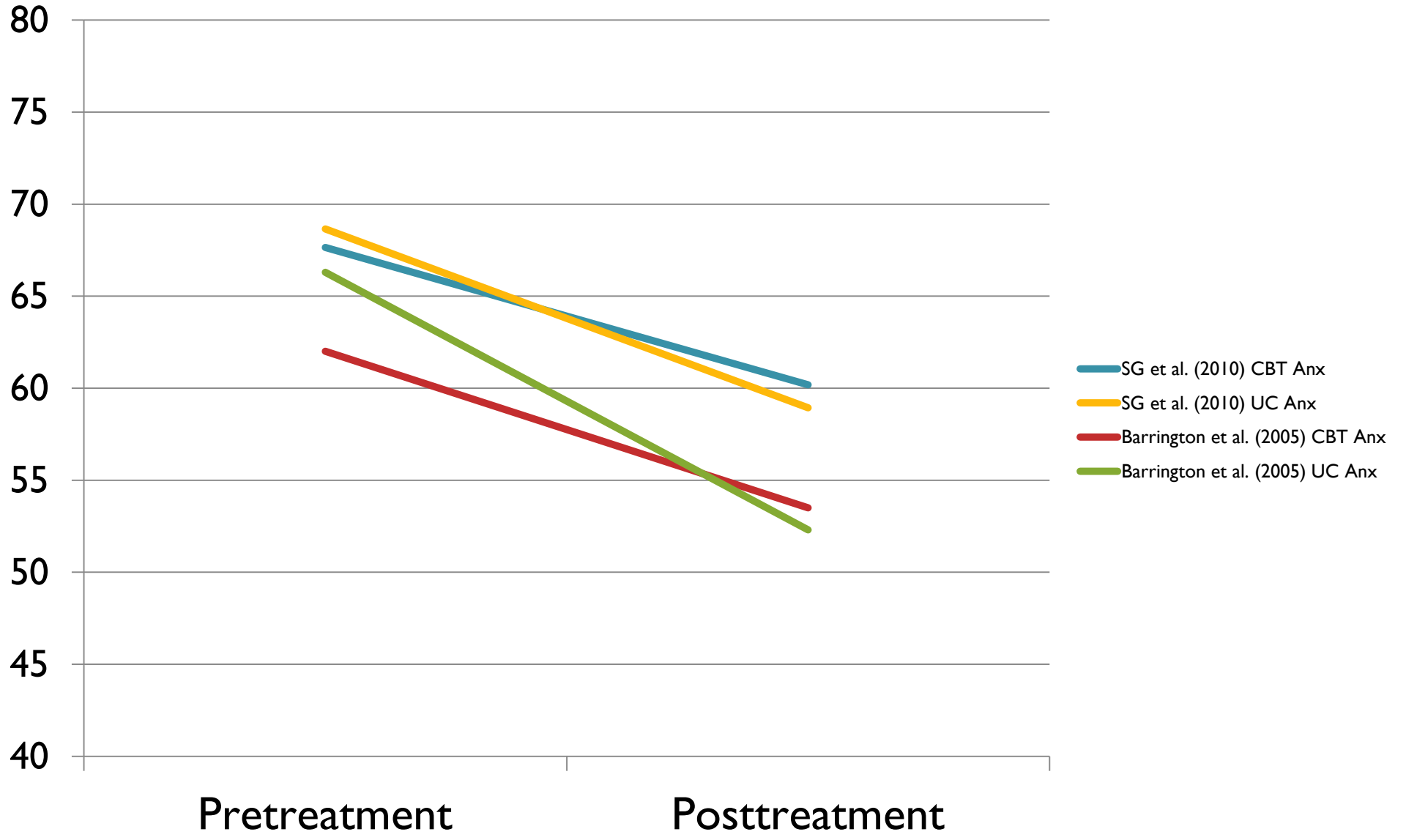
- Important to conduct outcome-mediation trials to understand key change producing procedures.

- If we know key change producing procedures, then we can focus our EBT training on those procedures
  - e.g., if we have parents in a child's treatment, what should be parents be taught to do?

Knowing what produces changes

- Seems especially important given equivocal findings coming from community effectiveness studies…

3 Effectiveness trials: CBT vs. Usual Care (trials using T-scores)



Failure to find CBT superior over usual care. But,

- 41% in UC received concurrent services vs 0% in CBT
  - Need for concurrent services in UC suggest CBT more effective because no need to supplement?

- Again, if we know procedures leading to change (mediators), perhaps we would have more effective/efficient training?

Conclusions

- For now, CBT has most evidence but much room for improvement
- Active, credible conditions such as Education Support produce positive effects in some studies
- Highlights flexibility with fidelity
- Also highlights need to understand how positive treatment effects are produced (mediation research).
  - Parent mediation studies are showing surprising findings
  - Other mediators??

Conclusions (cont.)

- CBT vs. Medication vs. Combined requires further testing, including sequencing effects (e.g., ADHD work)
- Effectiveness trials so far questions superiority of CBT over Usual Care; more research needed given limits noted
- (Use of technology; computer assisted, virtual reality – being developed and evaluated; e.g., patient compliance)
- Efficacy and effectiveness trials informing each other

For more information, please go to the main website and browse for workshops on this topic or check out our additional resources.

Additional Resources

Online resources:

1. Society of Clinical Child and Adolescent Psychology website: http://effective childtherapy.com
2. Center for Children and Families website: http://ccf.fiu.edu

Books:

1. Silverman, W.K. & Field, A.P. (2011). Anxiety disorders in children and adolescents. Cambridge University Press: New York.
2. Weisz, J.R. & Kazdin, A.E. (Eds.). (2010). *Evidence-based psychotherapies for children and adolescents.* New York: Guilford Press.

Peer-reviewed Journal Articles:

1. Beidel D.C., Turner S.M., Sallee F.R., et al. (2007). SET-C vs. fluoxetine in the treatment of childhood social phobia. *Journal of the American Academy of Child & Adolescent Psychiatry, 46,* 1622–1632.
2. Kendall, P. C., Safford, S., Flannery-Schroeder, E., & Webb, A. (2004). Child anxiety treatment: Outcomes in adolescence and impact on substance use and depression at 7.4 year follow-up. *Journal of Consulting and Clinical Psychology, 72*, 276–287.
3. Saavedra L.M., Silverman W.K., Morgan-Lopez A.A., & Kurtines W.M. (2010). Cognitive behavioral treatment for childhood anxiety disorders: long-term effects on anxiety and secondary disorders in young adulthood. *Journal of Child Psychology & Psychiatry, 51(8),* 924-934.
4. Silverman, W.K., Pina, A. A., & Viswesvaran, C. (2008). Evidence-based psychosocial treatments for phobic and anxiety disorders in children and adolescents. *Journal of Clinical Child & Adolescent Psychology, 37(1),* 105-130.
5. Walkup J., Albano A.M., Piacentini J., Birmaher B., Compton S., Sherrill J., et al. (2008). Cognitive behavioral therapy, sertraline, or a combination in childhood anxiety. *New England Journal of Medicine, 359,* 2753–2766.

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