Family Therapy for Adolescent Drug Abuse: State of the Science

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Family treatments work!

But…

- We don't know much about how or for whom they work.
- Definitions and outcomes of "family" treatment vary widely.

Relevant Reviews

- Rowe & Liddle (2003) – *J Marital & Family Therapy*
- Williams & Chang (2000) – *Clinical Psychology: Science & Practice*
- Winters et al. (1999) – *Sourcebook on Substance Abuse* (Ott et al., Eds.)
- Weinberg et al. (1998) – *J American Academy of Child & Adolescent Psychiatry*
- Waldron (1997) – *Advances in Clinical Child Psychology* (Ollendick & Prinz, Eds.)
- Stanton & Shadish (1997) – *Psychological Bulletin*
- Crits-Cristoph & Siqueland (1996) – *Archives of General Psychology*
- Liddle & Dakof (1995) – *J Marital & Family Therapy*

Review of Reviews

- Mixed bag of reviews includes other treatments, age groups, and problems
- Most reviews are qualitative; one (Stanton & Shadish, 1997) is quantitative
- Close examination reveals surprisingly few RCTs comparing FT to something else. (We have almost as many reviews as good studies.)
- All reviewers find evidence that FTs "work" – and some conclude FT works better than other non-family treatments.
- FT effect sizes appear to increase with time (suggesting durability)
- In contrast to the broader therapy literature, most FT studies have an active-treatment control condition and thus a higher standard of "effect."
- The methodological quality of FT studies has increased over the past decade.

Efficacy Studies of Family Treatments for ADA

Study	*Comparison group(s)*	*Outcome*
Friedman, 1989	Parent support group	Tx = other
Lewis et al., 1990	Family drug education	Tx > other
Henggeler et al., 91/ SC	Meetings with probation officer	Tx > other
Henggeler et al., 91/MO	Individual Counseling	Tx > other
Joanning et al., 1992	Group therapy; family drug education	Tx > others
Liddle et al., 1993	Group therapy; family drug education	Tx > others
Azrin et al., 1994	Supportive counseling	Tx > other
Kinsley & Bry, 1997	School intervention	Tx = other
Waldron et al., 2001	Individual CBT; group therapy	Tx > others
Santisteban et al., 2003	Group therapy	Tx > other

Durability of Family Treatment Effects

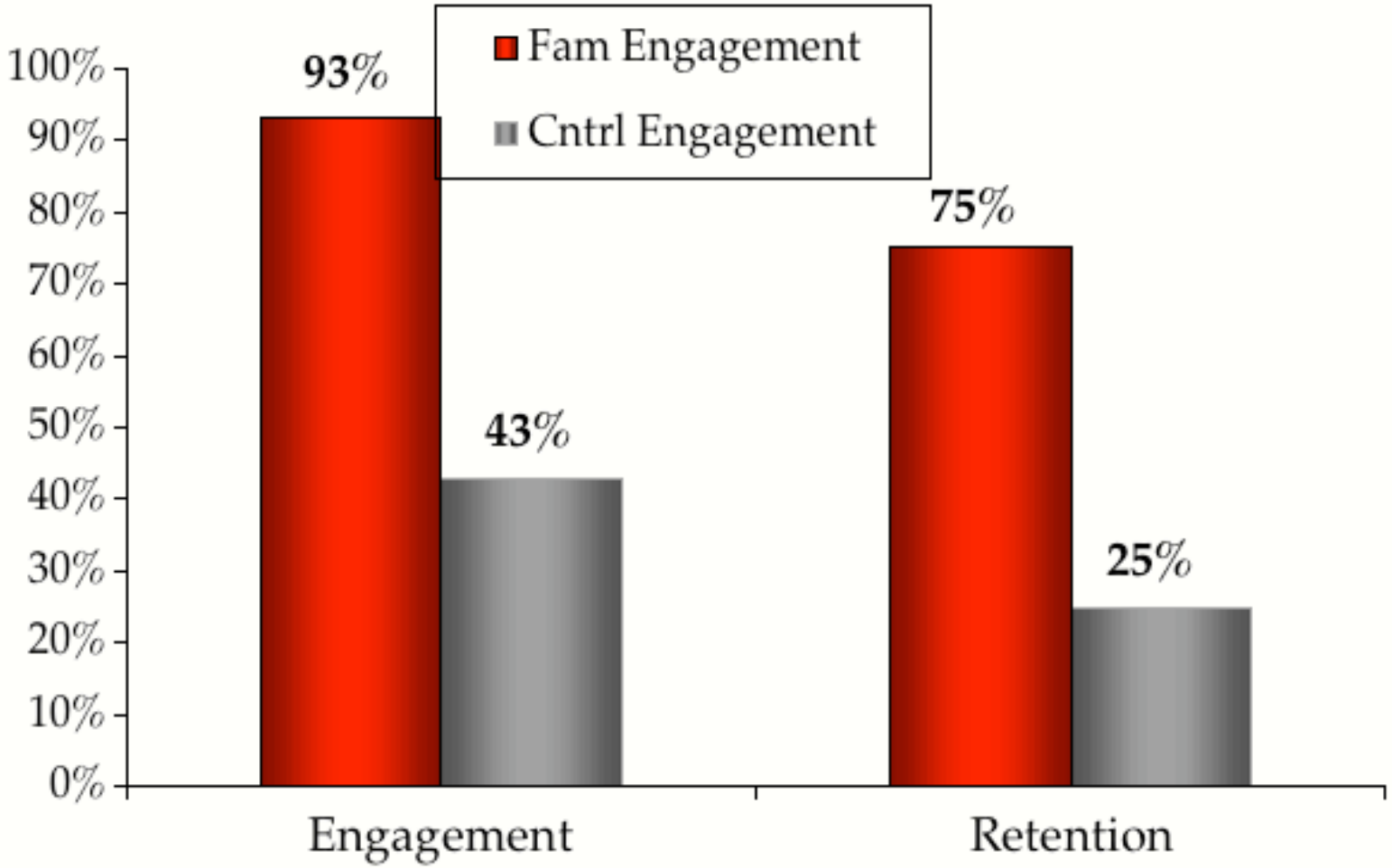
- Family treatments not only outperformed other interventions at discharge, but their effects were more pronounced when examined for longer follow-up assessment periods (Stanton & Shadish, 1997).
  - 1-year FU: MDFT > Family Education (Liddle et al., 2001); the effect of MDFT continued to increase while that of the multi-family education leveled off.)
  - 4-year FU: MST > TAUs (Henggeler et al., 2002); abstinence rates were 55% vs 28%, respectively.

Engagement and Retention

- Individual studies suggest that well-defined family-focused (e.g., BSFT) engagement strategies outperform other, more standard engagement strategies.
  - Szapocznik et al., 1988
  - Santisteban et al., 1996
  - Donohue et al., 1998
  - Dembo et al., 1998
  - Slesnick et al, 2000

- Meta-analytic review (Stanton & Shadish, 1997): Retention in family-based therapy is better than in other well-established adolescent drug treatments.

Engagement and Retention



(Szapocznik et al., 1988)

What (besides outcome data) makes family treatments credible?

- A rich empirical literature links family processes to the initiation and escalation of adolescent drug use, as well as to recovery, e.g.,
  - Parenting practices as prospective risk or protective factors (low monitoring, ineffective discipline, poor communication, disapproval of drug use)
  - Dysfunctional family "structure" as concurrent correlates of ad. drug use and likely factors in its maintenance (lack of conflict resolution, cross-generational coalitions or triangulation, collapsed or reversed parent-child roles).
- In theory, treatments that address and modify risk and maintenance factors should have favorable outcomes.
- Funding and policy initiatives increasingly recognize the role of family in substance abuse treatment and prevention programs.

Challenges in ADA treatment research:

1. What's the dependent (outcome) variable?

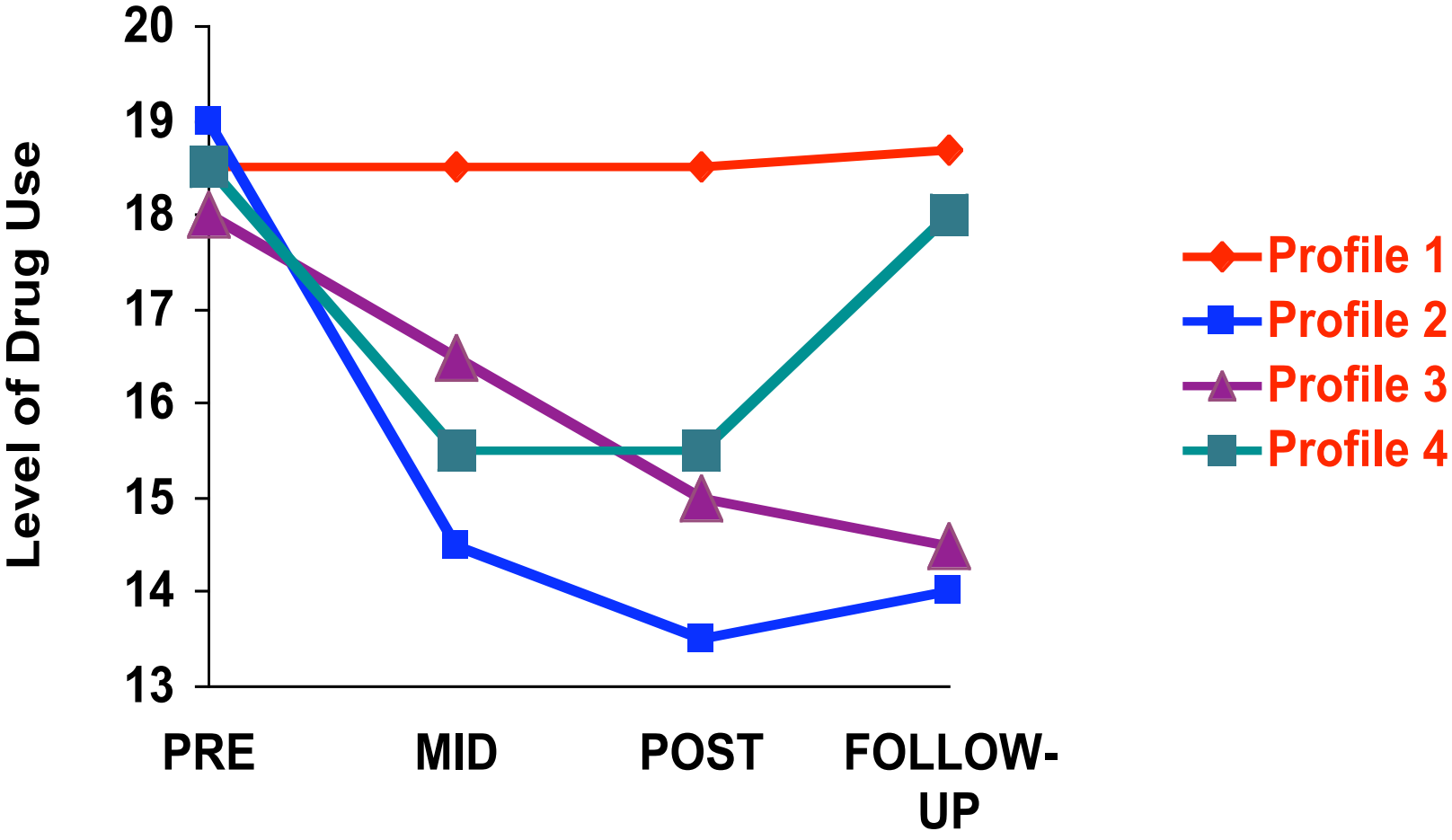
2. What's the independent variable (i.e., what is "family" treatment)?

3. How and for whom do family treatments work?

What's the dependent (outcome) variable?

- High psychiatric co-morbidity (> 50%) complicates understanding "outcome."
- Different studies emphasize different outcomes:
  - ✓ Change in drug use (reduction, abstinence)
  - ✓ Engagement /retention in treatment
  - ✓ Change in behavior problems (e.g., arrests, school dropout, externalizing/internalizing behavior)
  - ✓ Change in family functioning
- Temporal relations among outcomes (mediating pathways) are poorly understood.

Cluster Analysis of Change Trajectories



(Waldron, Turner et al., 2002)

What's the independent variable?

- Inherent ambiguities in defining "family therapy" (e.g., treatment modality or conceptual framework?)
- Four manualized treatments highlight the diversity of approaches:
  - Brief Strategic Family Therapy (BSFT; Szapocznik et al.)
  - Functional Family Therapy (FFT; Alexander, Waldron et al.)
  - Multisystemic Therapy (MST; Henggeler et al.)
  - Multidimensional Family Therapy (MDFT; Liddle et al.)
- Though related, these treatments differ substantially in their theories of problems and focus/scope of intervention.
- The critical components of multi-modal, integrative treatments can be difficult to identify.

How and for whom do family treatments work?

- To study how a treatment works, test for mediation
- To study for whom a treatment works, test for moderation
- RCTs typically ignore potentially meaningful M&M effects

Mediation analyses: How treatments work?

- Outcome research on ADA treatments and antisocial behavior includes few formal tests of mediation.
- Mediation analyses clarify causal pathways and mechanisms of therapeutic change.

e.g.,

- Model 1:

  Tx ---> improved family functioning ---> reduced drug use

- Model 2:

  Tx ---> reduced drug use ---> improved family functioning

Model 1: Biological mediation

Tx ---> brain change ---> behavior change

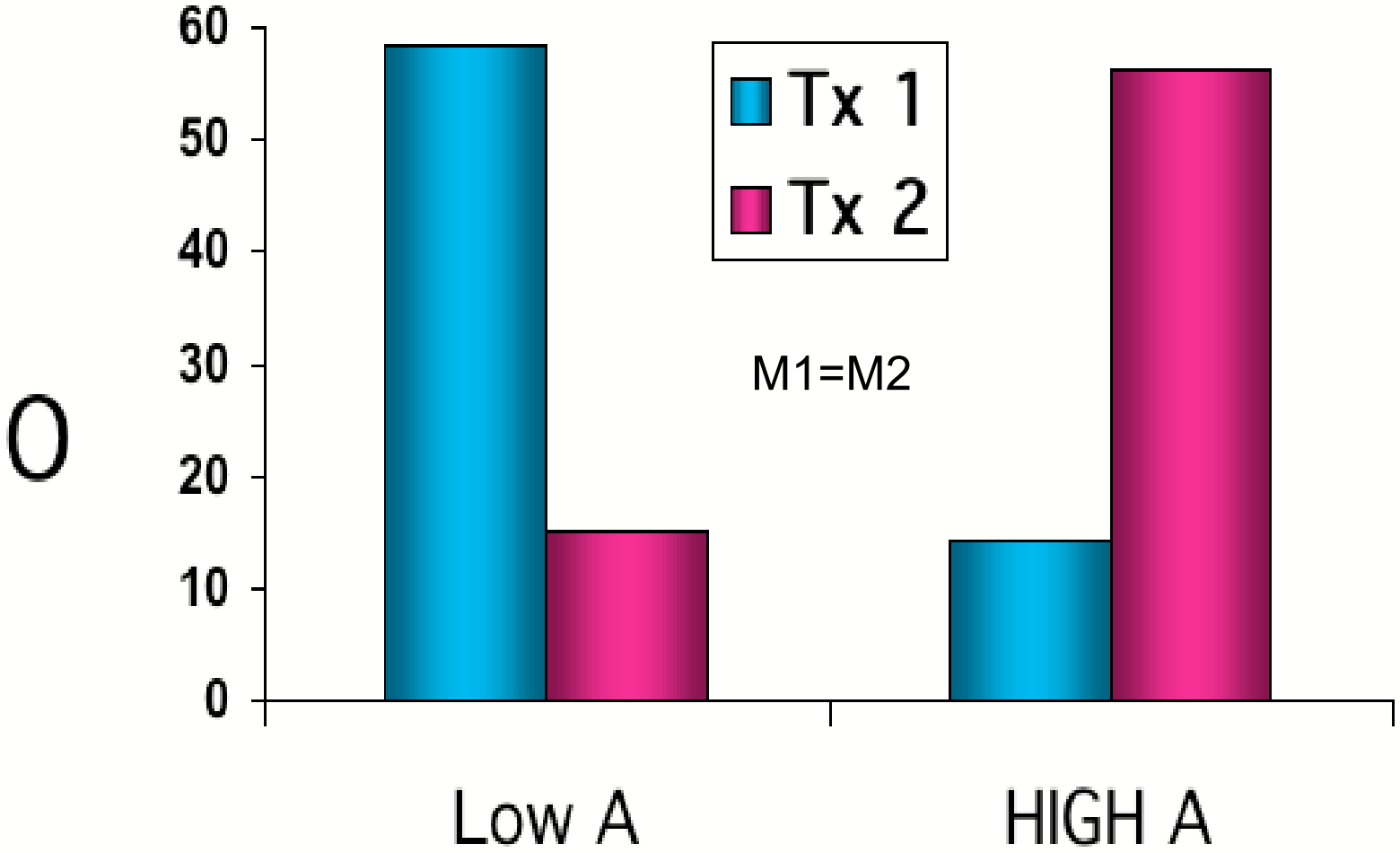
Model 2: Behavioral mediation

Tx ---> behavior change ---> brain change

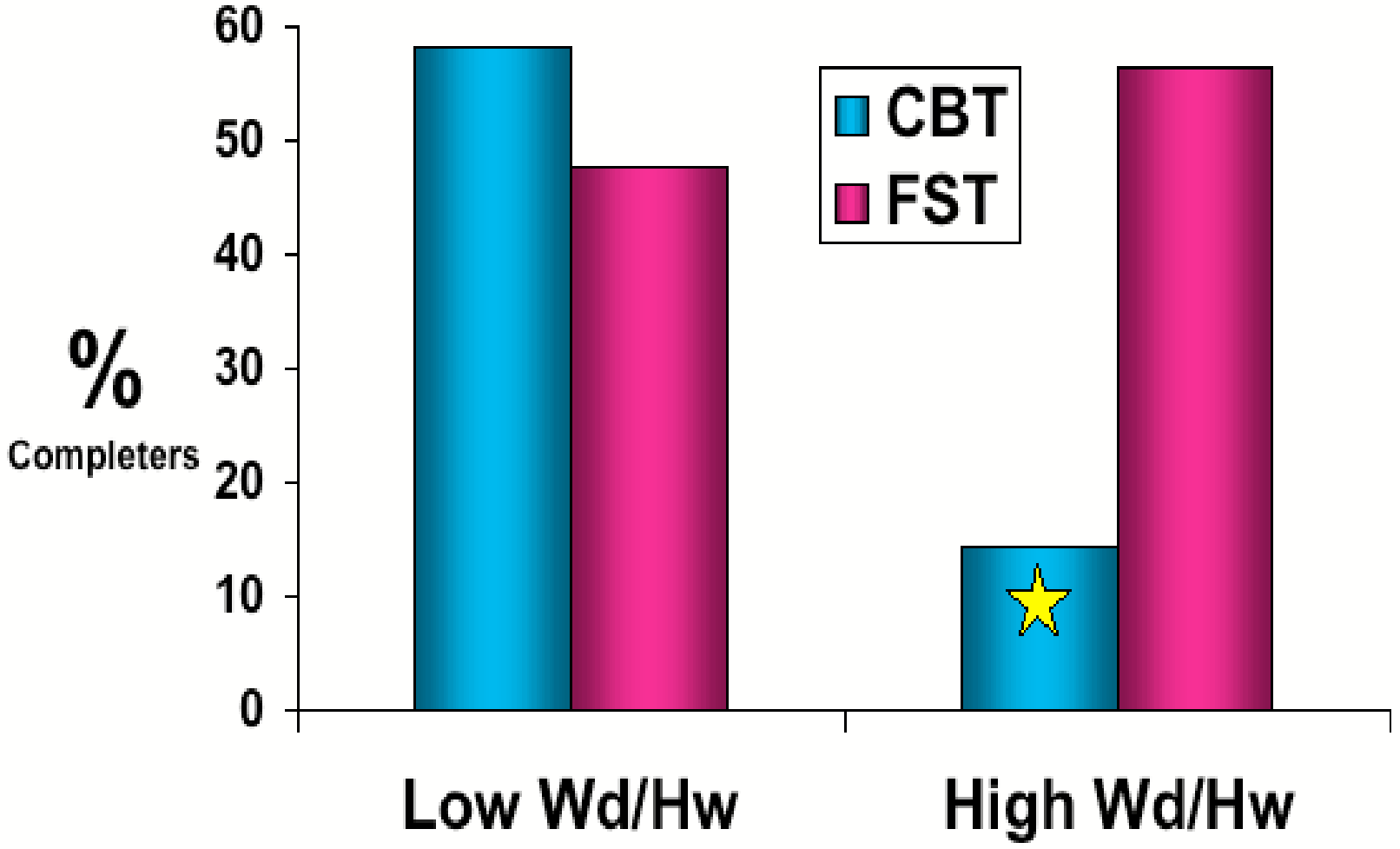
Moderation: <u>For whom</u> treatments work?

- Attribute x treatment interactions (ATIs) highlight what works for whom ("different strokes for different folks?")
- A treatment may work for subgroups in the absence of an overall treatment effect.
- Comprehensive, multi-model treatments such as MST and MDFT may be more necessary for some adolescents than others. For whom might less be best?

Improvement rates for Tx 1 and Tx 2 among patients low vs. high on "A"



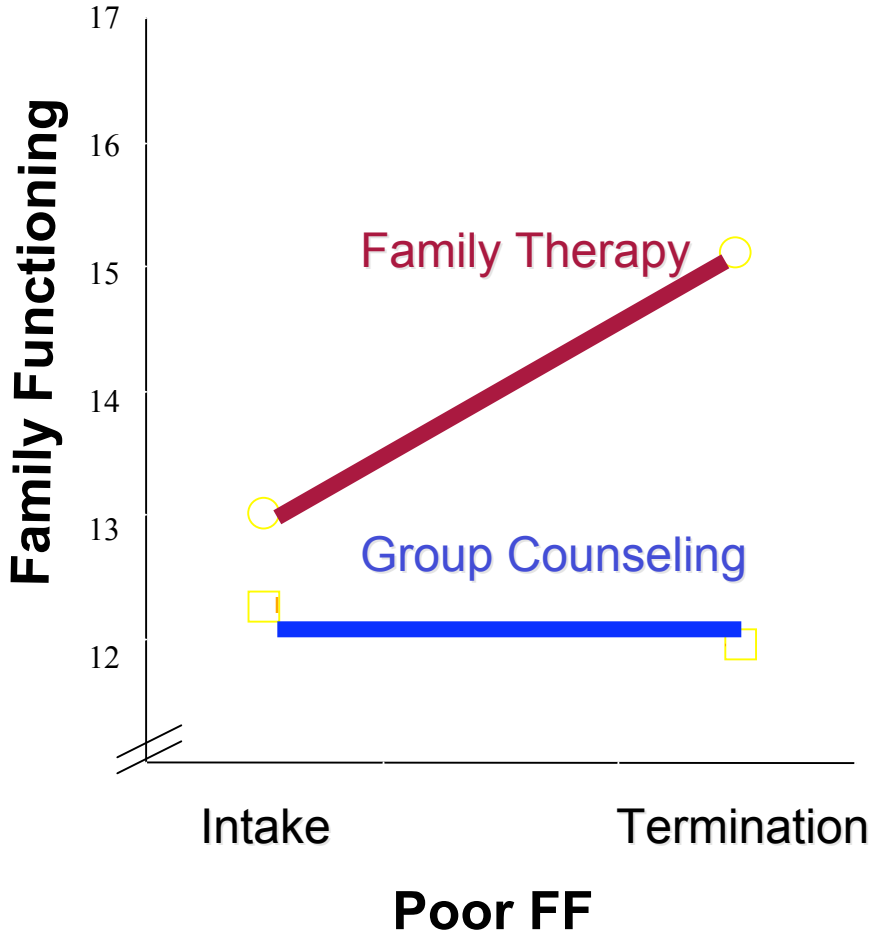
Percent of alcoholics completing CBT and FST among couples low vs. high on Wd/Hw

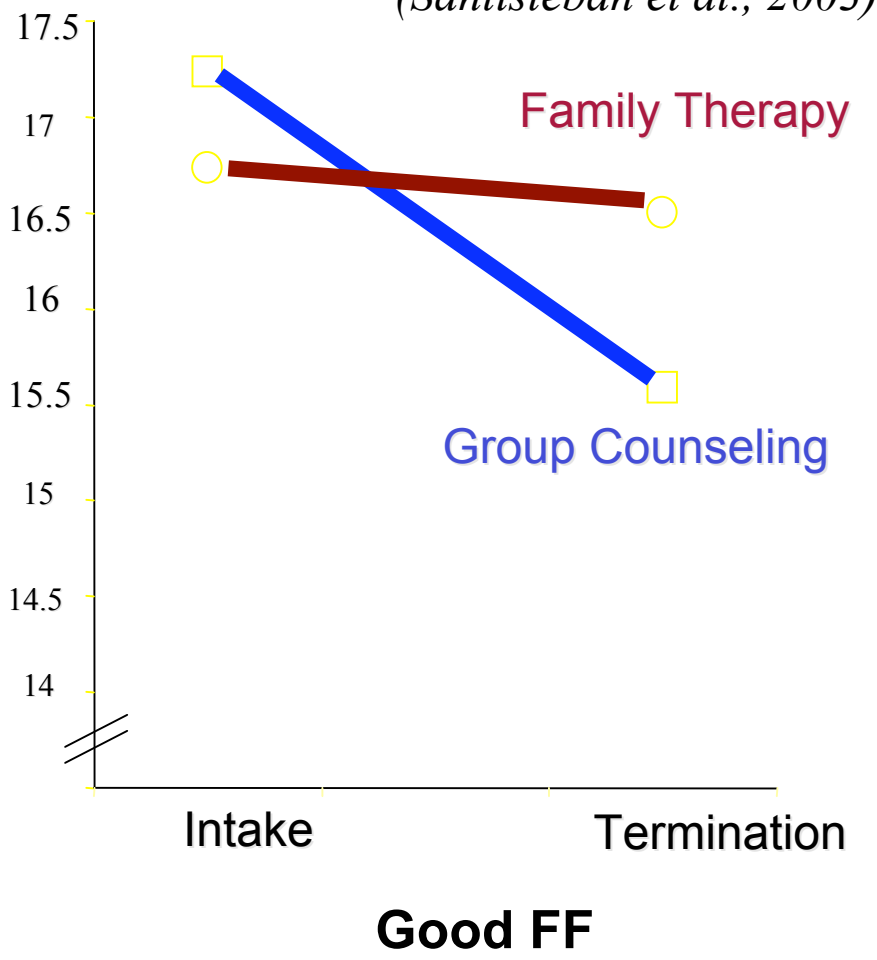


Shoham, Rohrbaugh, et al., 1998

Improvement in family functioning (FF) for family therapy vs group counseling among families with poor vs good FF at intake

(Santisteban et al., 2003)





To summarize…

- Family treatments do work.
- We don't know much about how or for whom they work.
- Definitions and outcomes of family treatment vary widely.
- We clearly need more family (and non-family) ADA treatment research.