

Directions and Distinctions in Family Therapy Mediation–Moderation Research

Varda Shoham & Michael Rohrbaugh
University of Arizona

In collaboration with
Jose Szapocznik, Michael Robbins, & Daniel Feaster
University of Miami

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Family Therapy for ASA: State of the Science

- The methodological quality of FT studies has increased over the past decade.
- All reviews find evidence that FTs "work" – and some conclude FT works better than other non-family treatments.
- 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."
- **Although family therapies work, we know very little about how and for whom they work.**

Efficacy Studies of Family Treatments for ADA

<i>Study</i>	<i>Comparison group(s)</i>	<i>Outcome</i>
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

Empirically-Supported Treatments for ASA

- Brief Strategic Family Therapy (BSFT; Szapocznik et al.)
- Functional Family Therapy (FFT; Alexander, Waldron et al.)
- Multidimensional Family Therapy (MDFT; Liddle et al.)
- Multisystemic therapy (MST; Henggeler et al.)

Though related, these treatments differ substantially in theories of change and focus/scope of intervention.

BSFT Theory of Change

- BSFT is grounded in structural family–systems theory (Minuchin, Haley et al.), as well as the Miami group’s own research and clinical experience.
- Repetitive sequences of family interaction define problematic “structure” that maintains ASA (e.g., disengaged or over–involved relationships, collapse or reversed parent–child roles; triangulation or cross–generational coalitions).
- Planned (strategic) interventions aim to shift problem–maintaining family interactions to a structure more conducive to reducing drug use (e.g., clearer generation boundaries, more positive parent–child involvement).
- Structural change is instigated directly, through enactments in the therapy session, and reinforced by relevant homework tasks.

Purpose and Design of the M&M Project

(Shoham, Rohrbaugh, Robbins, Szapocznik, & Feaster, 2003)

- M&M project uses NIDA's Clinical Trials Network (CTN) as a platform for testing M&M hypotheses about BSFT.
- Parent study (Szapocznik et al.) compares outcomes of BSFT to TAU in 14 community treatment programs around the country ($N > 800$).
- M&M examines how and for whom BSFT works, relying mainly on repeated observational assessments of family functioning and intervention fidelity.
- Primary hypotheses focus on family structural change as a mediator of BSFT effects and on pre-treatment family functioning as a moderator of those effects.
- Secondary aims (a) compare individual and family-level change processes, (b) test the relative utility of observational and self-report measurement, and (c) examine trajectories of BSFT therapists' conceptual and behavioral skills as they progress through training and the clinical trial.

Observational Assessments

- Family functioning (SFSR), before and after treatment
 - Structure
 - Resonance
 - Identified patienthood
 - Developmental stage
 - Conflict resolution

- BSFT treatment fidelity (TFS), sessions 1 and 4
 - Joining
 - Tracking
 - Eliciting
 - Restructuring

Importance of Temporal Precedence

- Key definitions (from Baron & Kenny; Kraemer et al.):
 - *Mediator* = intermediate variable that occurs in a causal pathway between an independent (Tx) and dependent (outcome) variable.
 - *Moderator* = effect modifier that influences the relationship between an independent and dependent variable.
- Assessment of mediators should therefore occur after treatment begins but before outcome is assessed, whereas assessment of moderators should happen before treatment begins.

Suggestions for Family M&M Research

1. Consider mediators (mechanisms of change) together with plausible moderators of treatment effects ("moderated mediation")
2. Distinguish between-treatment from within-treatment tests of mediation and moderation.
3. Test alternative hypotheses regarding (a) common v. specific mediators and (b) mediators derived from competing theories of change.
4. Consider the hypothesized time course of change.
5. Examine how markers of "case difficulty" moderate the effect size of different treatments.

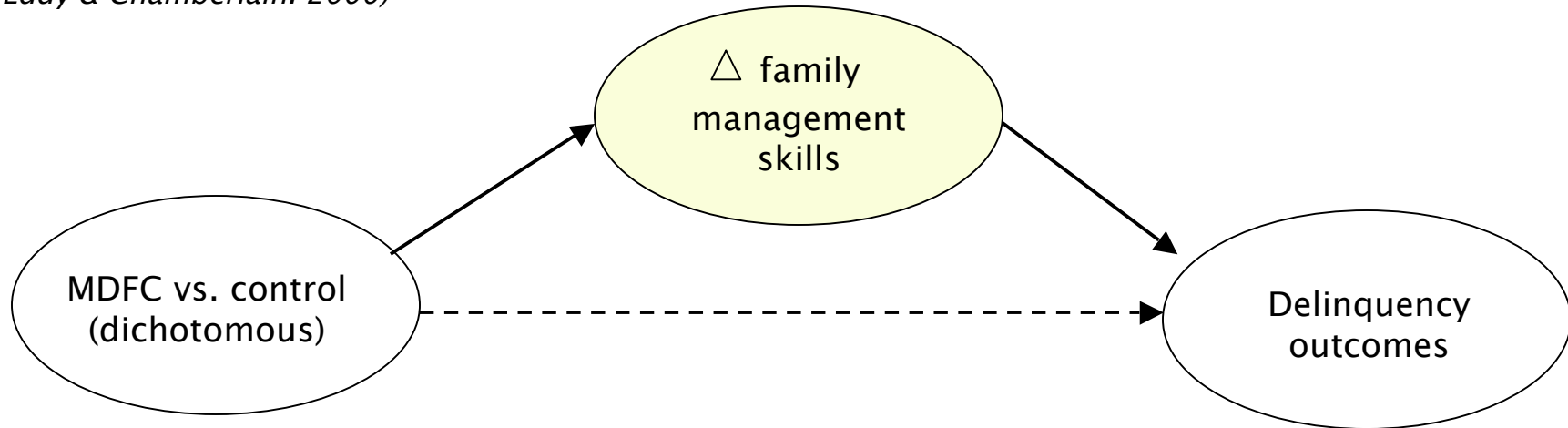
1. Consider mediators and moderators together

- Expected (hypothesized) mediation has been difficult to demonstrate.
 - cognitive change in CBT (Carroll)
 - communication skills in CBT for couples (Baucom)
 - relatives' EE in family Tx for bipolar disorder (Miklowitz)
- Why? Different people or families may change in different ways (moderated mediation).
- Mediation (“how” questions) and moderation (“for whom” questions) may be inextricably interwoven.

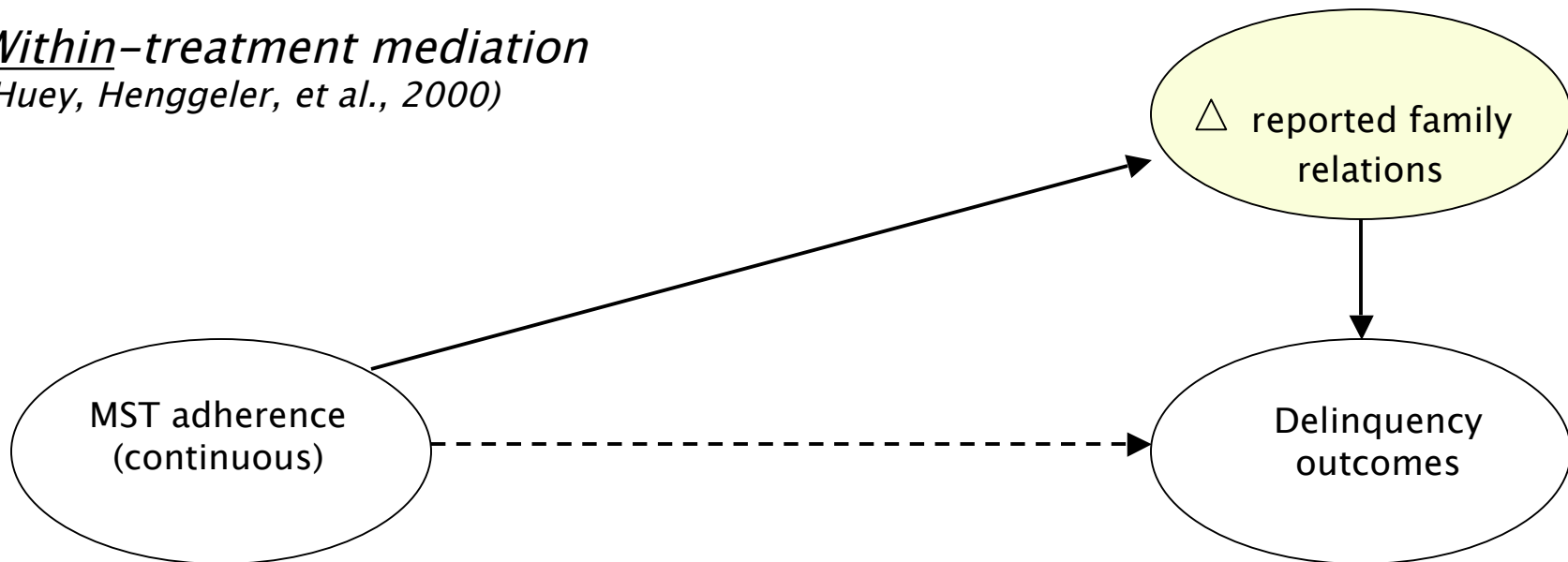
2. Distinguish between-treatment from within-treatment tests of mediation and moderation

- Two illustrative studies of family-change mediation in adolescent treatment research:
 - Eddy & Chamberlain (2000)
 - Huey, Henggeler, Brondino, & Pickrel (2000)

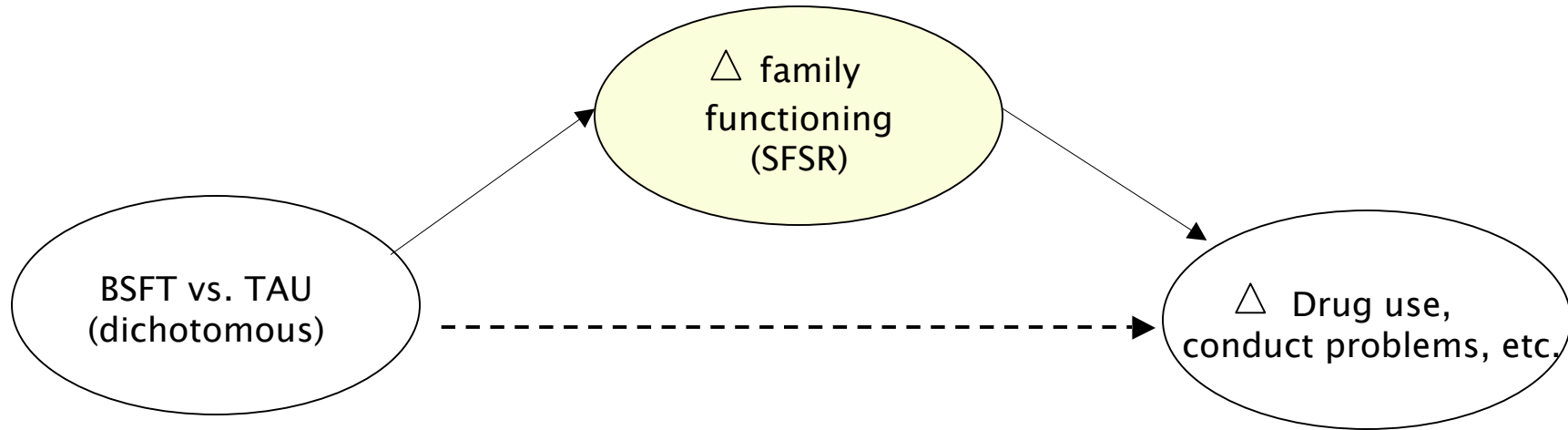
Between-treatment mediation
(Eddy & Chamberlain, 2000)



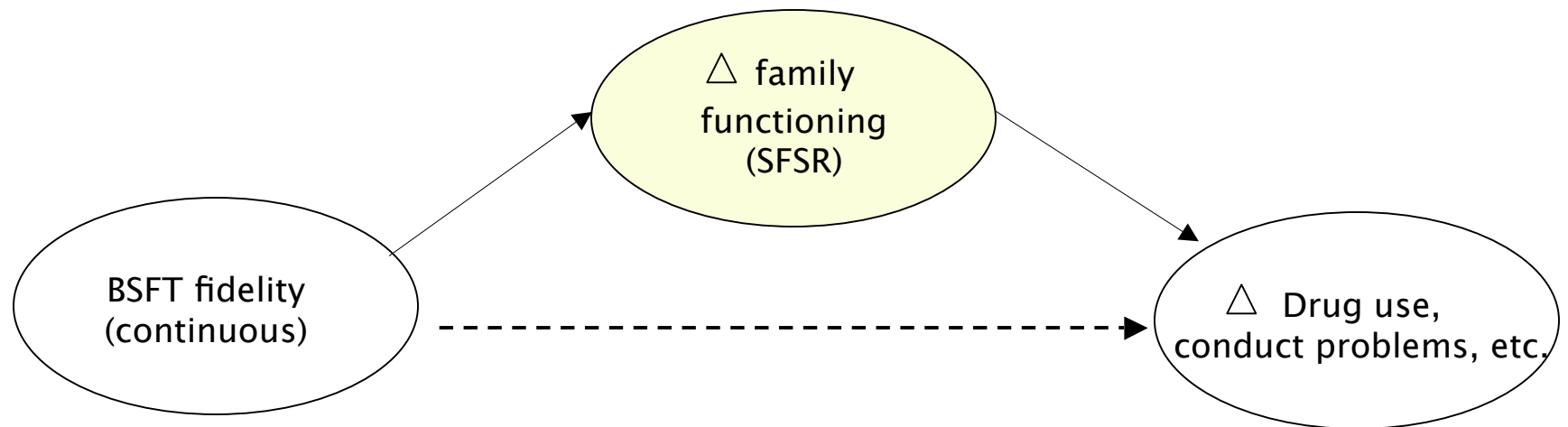
Within-treatment mediation
(Huey, Henggeler, et al., 2000)



Hypothesized between-treatment mediation (M&M project)



Hypothesized within-treatment mediation (M&M project)

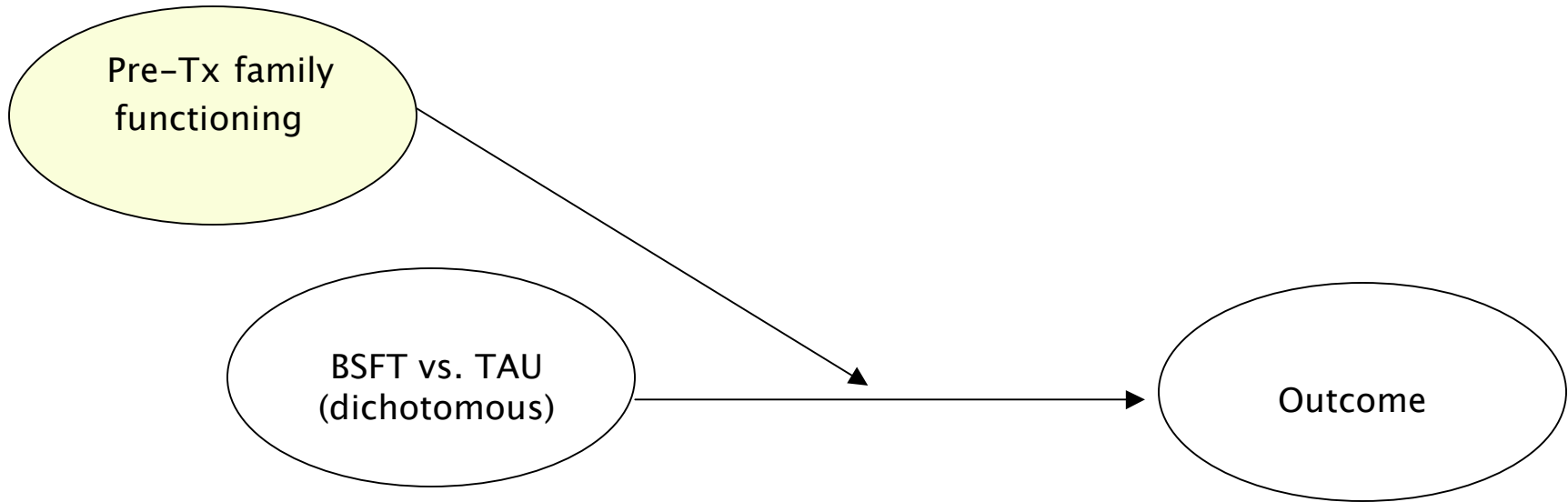


(Baseline)

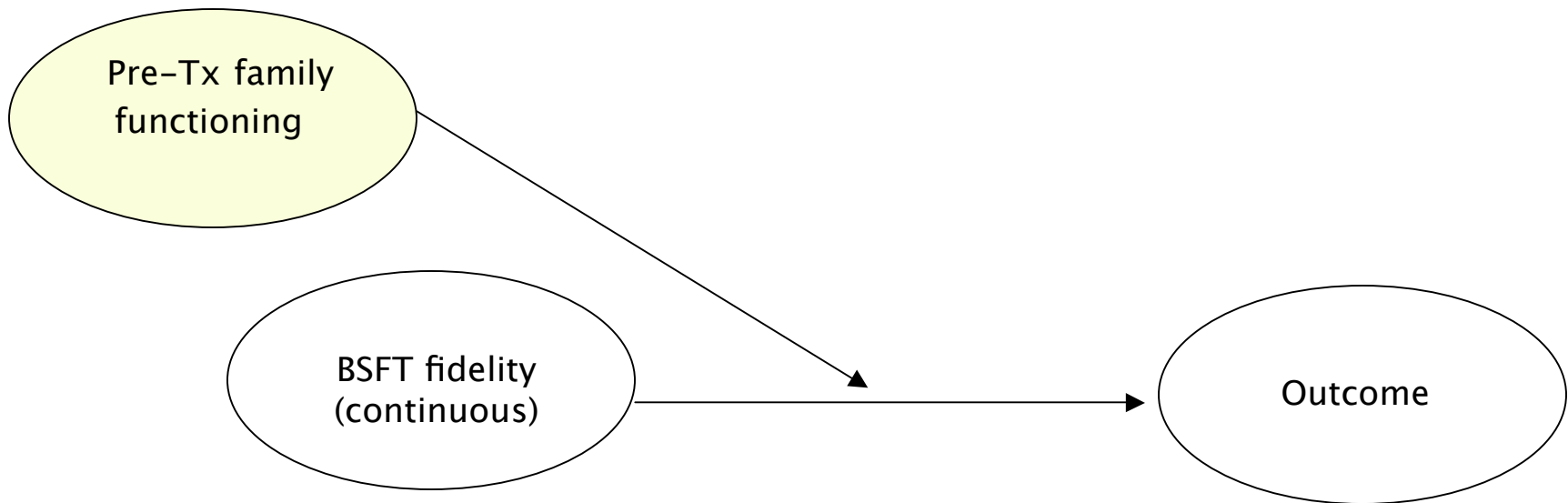
(Month 4)

(Months 5-12)

Hypothesized between-treatment moderation (M&M project)



Hypothesized within-treatment moderation (M&M project)

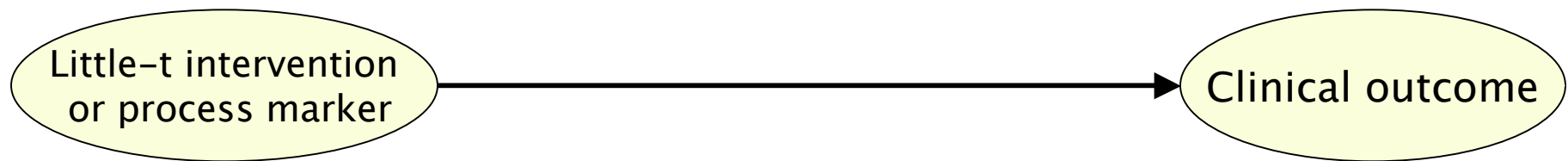


3. Test alternative hypotheses regarding

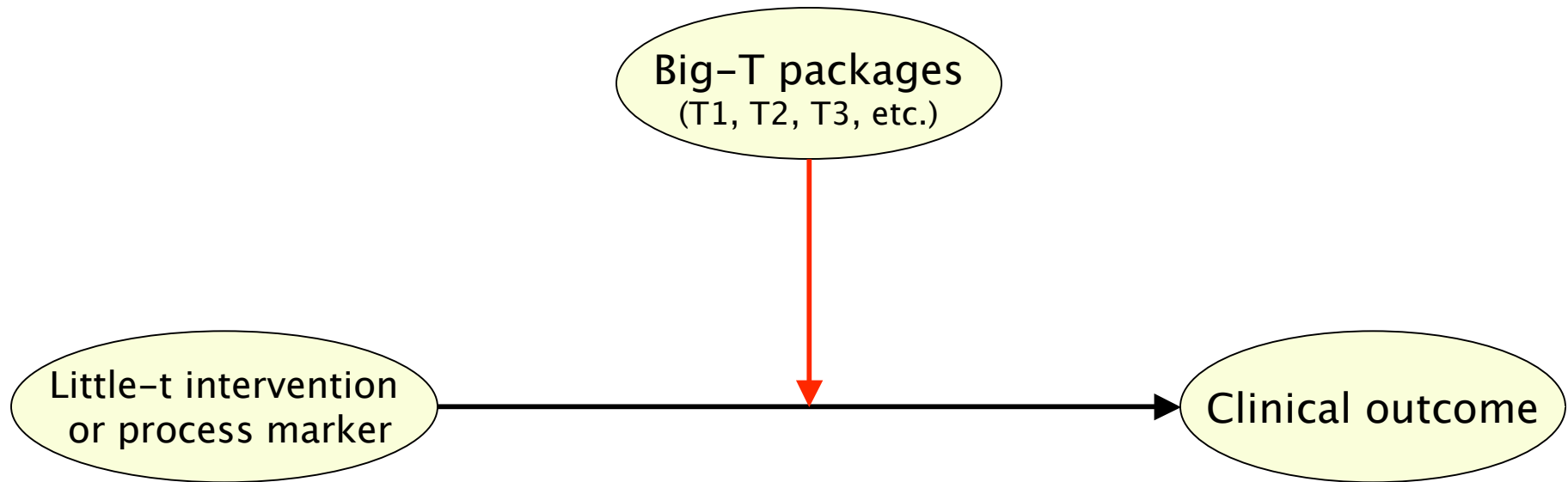
(a) treatment-specific v. common-factor mediators

(b) mediators derived from alternative theories of change

(a) Tx-specific mechanisms of change (v. common factors)



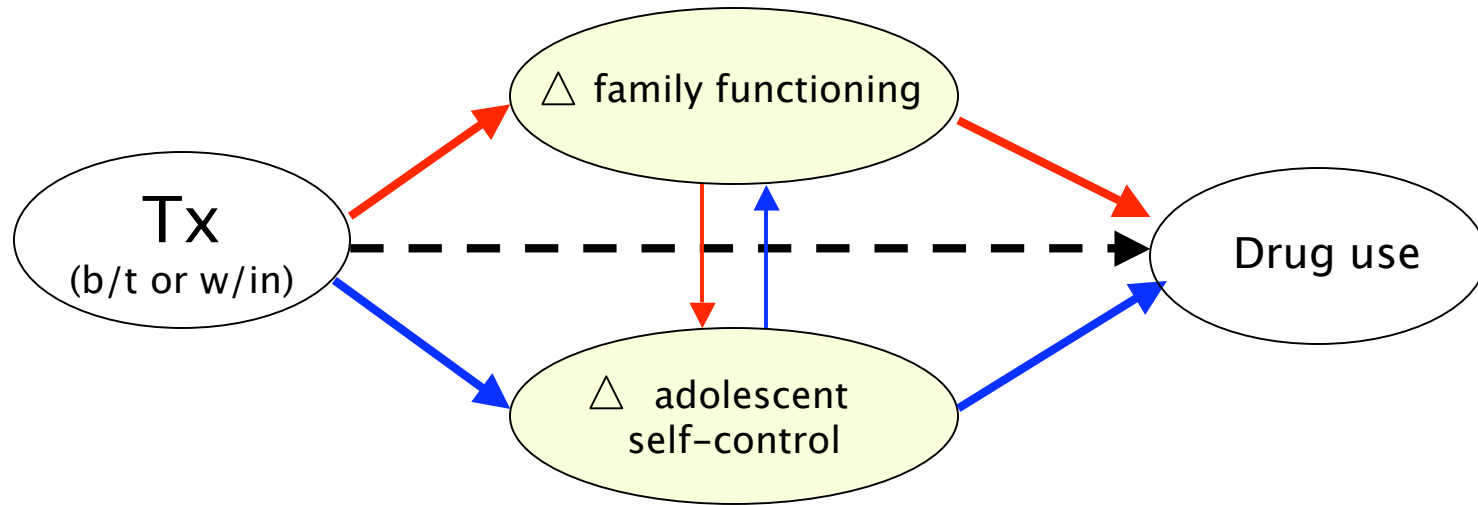
(a) Tx-specific mechanisms of change (v. common factors)



e.g., unbalanced therapist alliance with parent and child predicts outcome differently in FFT, BSFT, & MDFT (Robbins et al.)

(b) Compare mediators derived from alternative theories of change

Testing concurrent mediation



Comparing sequential pathways

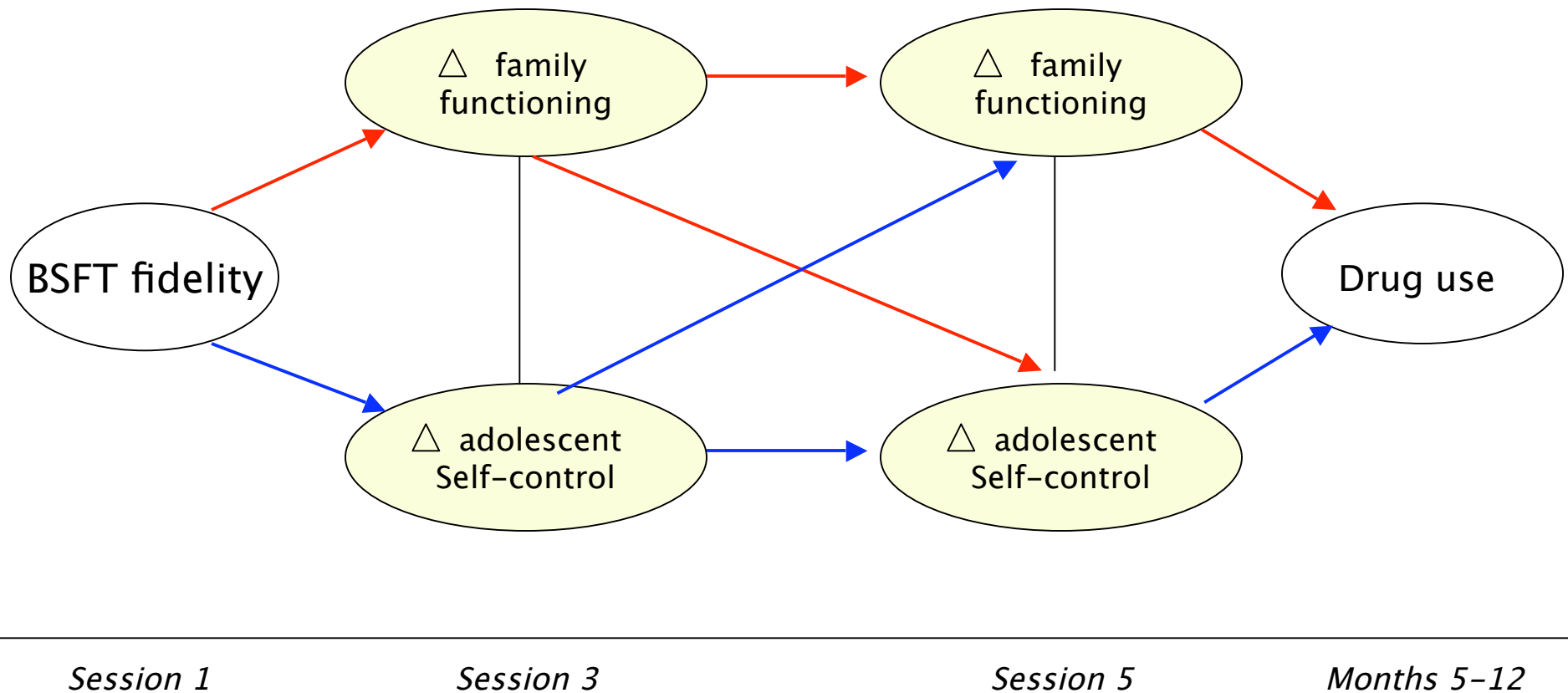
- Model 1:

Tx → improved family functioning → reduced drug use

- Model 2:

Tx → reduced drug use → improved family functioning

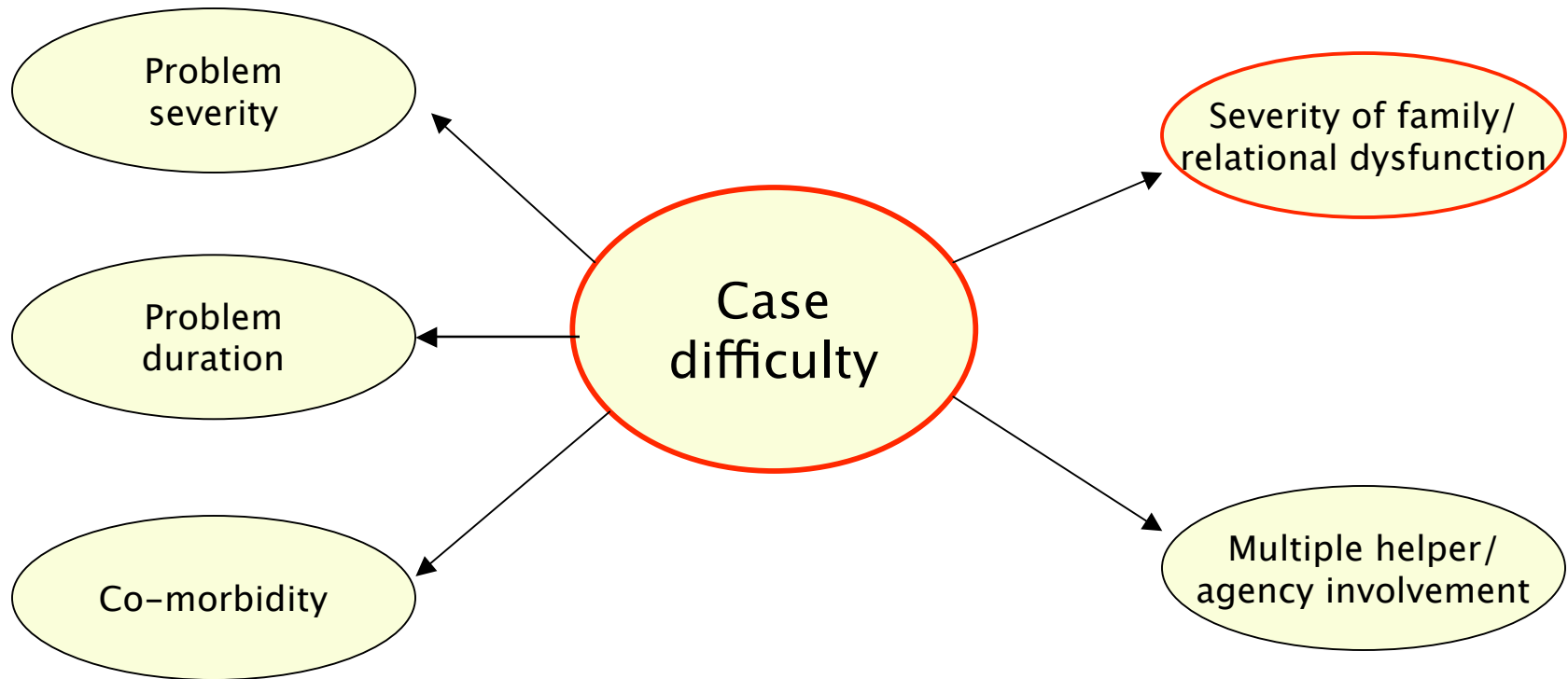
4. Consider the hypothesized time-course of change



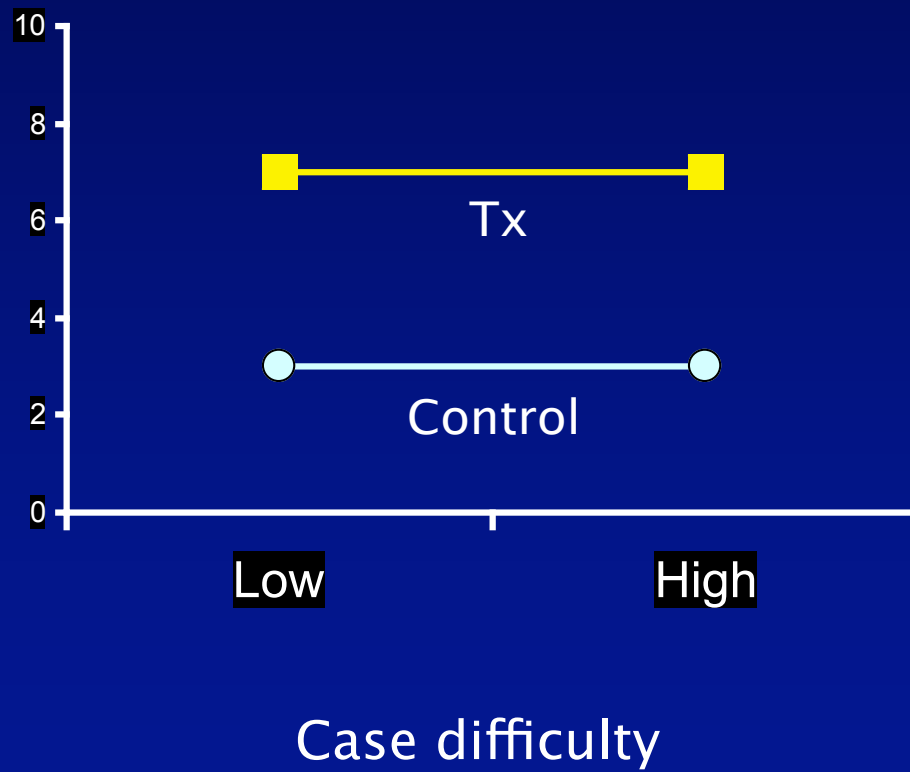
5. Examine how markers of “case difficulty” moderate the effect size of different treatments

*Individual
markers*

*Contextual
markers*

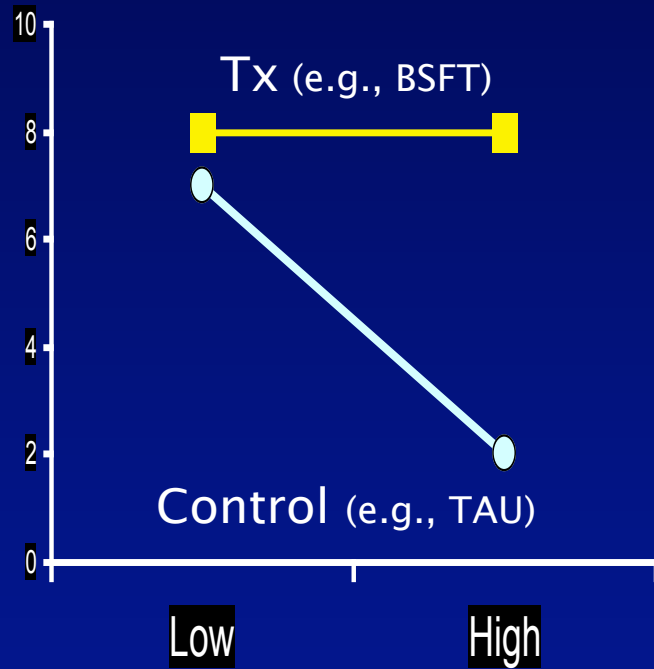


Scenario 1:
Tx Works regardless of case difficulty



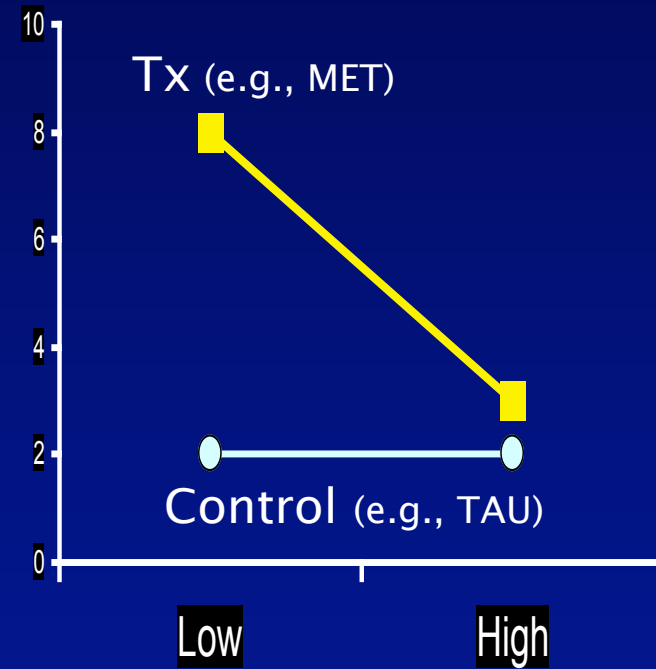
Scenario 2:

Tx necessary for difficult cases



Scenario 3:

Tx sufficient only for easy cases



Case difficulty

Relevance to “stepped care”

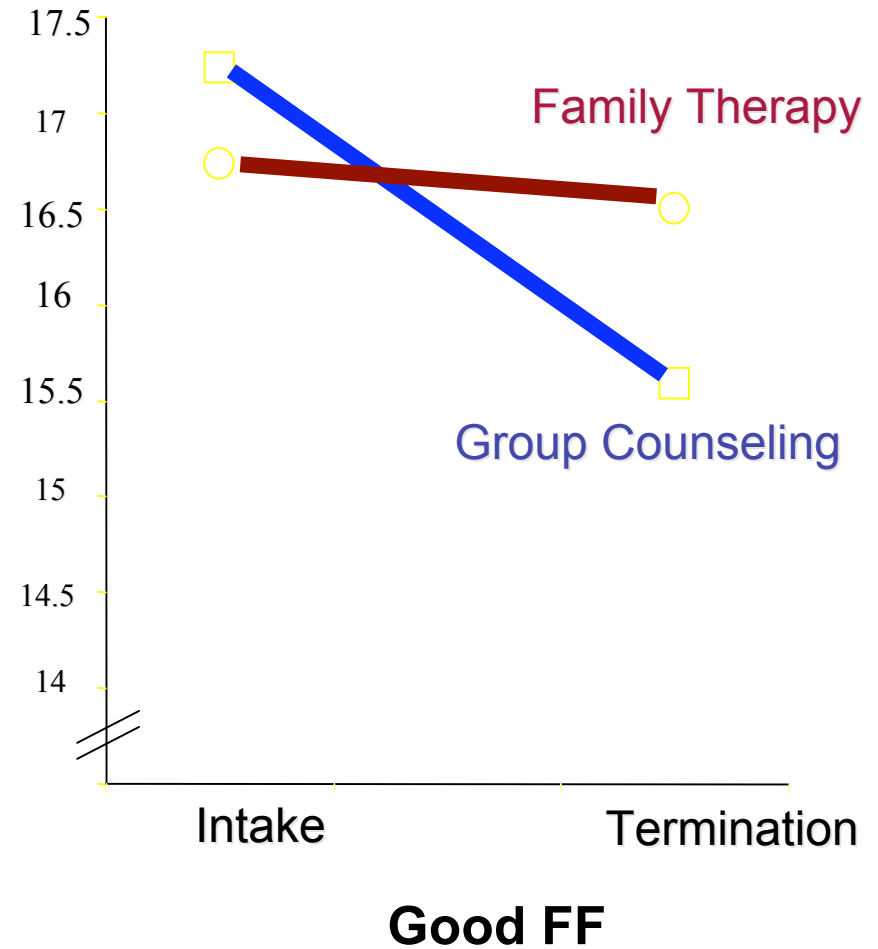
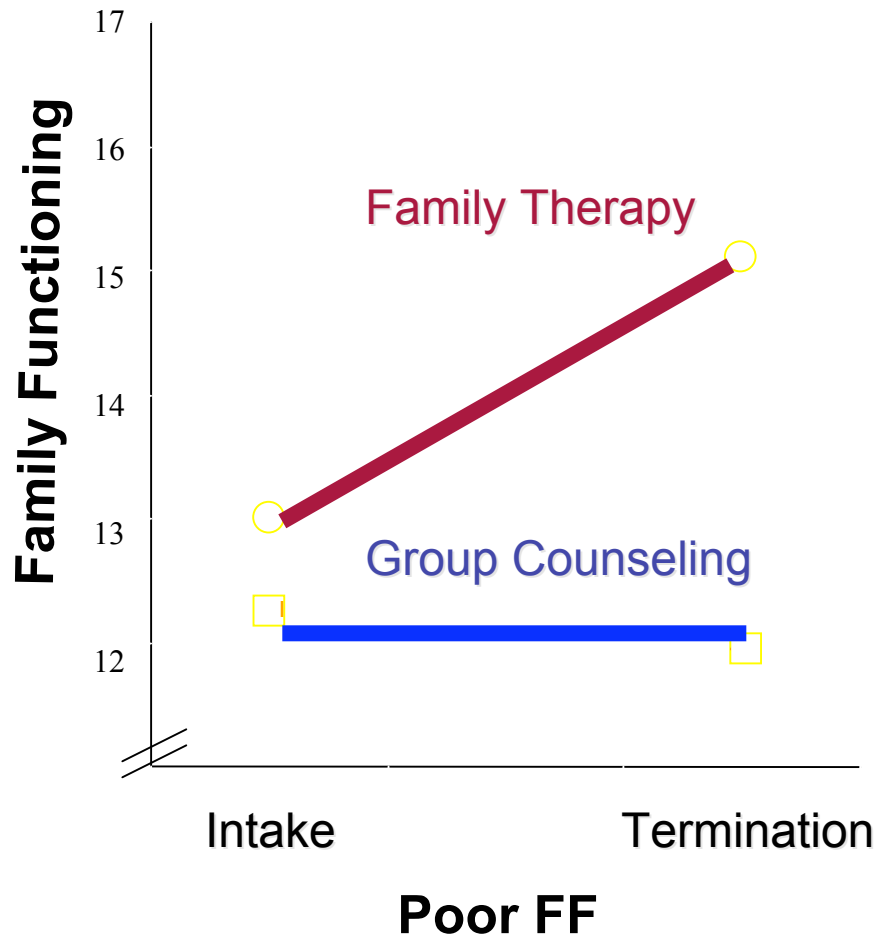
- When is a more intensive or expensive treatment necessary?
- When is a briefer, less intensive treatment sufficient?

Relevance to mechanisms of action

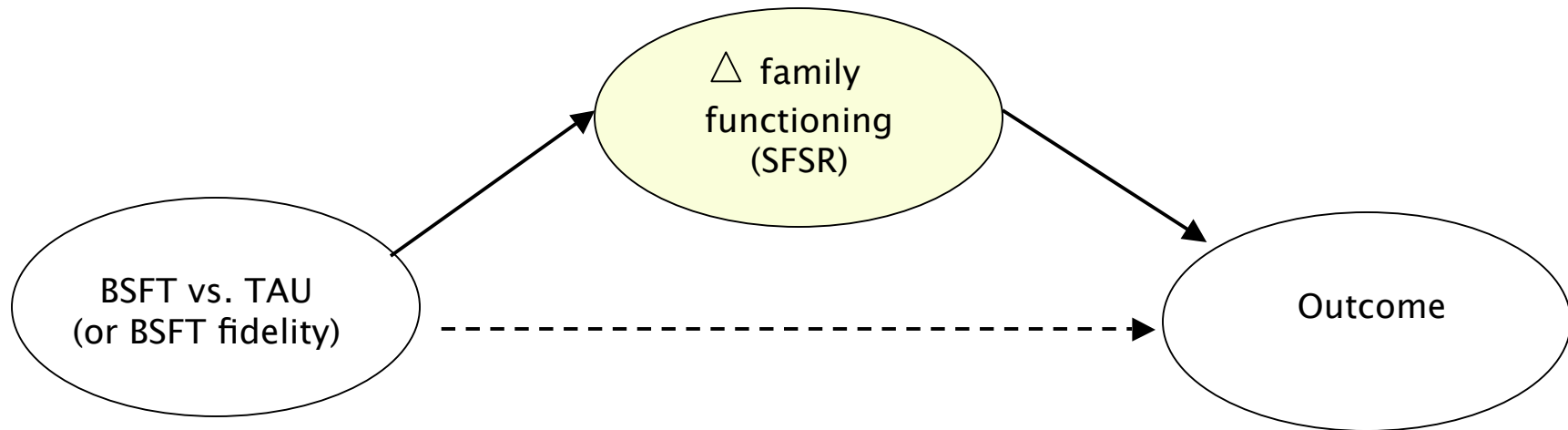
- Moderated mediation?

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

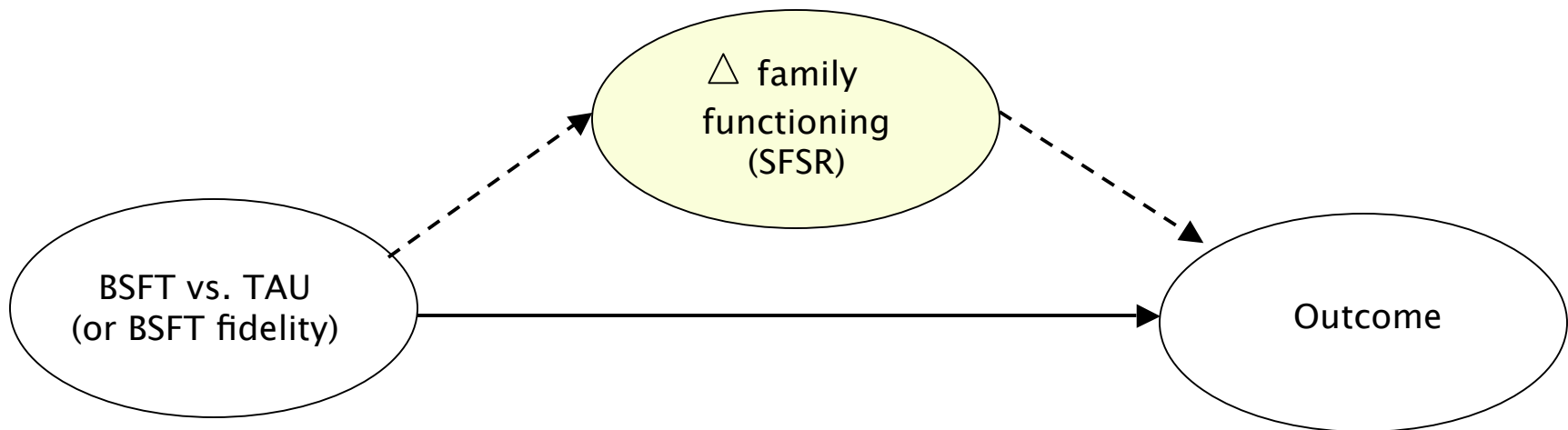
(Santisteban et al., 2003)



Poor family functioning at intake



Good family functioning at intake



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