Predictors of Informant Discrepancies on Observer, Therapist, Youth, and Caregiver Ratings of Treatment Adherence

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Introduction

- Treatment outcome studies consistently highlight the efficacy of evidence-based treatments (EBTs) for common youth mental health problems (Weisz et al., 2017).
- However, when EBTs are transported to usual care (UC) there is a drop in adherence, and a corresponding drop in treatment outcomes (e.g., Henggeler et al., 2009).
- Practical treatment adherence monitoring tools that support high-quality implementation of EBTs in UC may help bridge the research-to-practice gap in youth mental health care (McLeod et al., 2013).
- Self-reported adherence measures may be a potential alternative to the gold-standard observational coding approach (McLeod et al., 2013).
- However, there have been concerns about the psychometric properties of these self-reported measures (e.g., Martino et al., 2009).
  - Specifically, youths, parents, and therapists tend to overreport adherence compared to observational coders (e.g., Chapman et al., 2013).
- Further investigation of the psychometric properties of self-reported adherence measures may guide future development and implementation of effective and scalable adherence measures.

Study Aims

Aim 1: Examine cross-informant correspondence on therapist adherence to Cognitive-Behavioral Therapy
- **H1**: Low correlation across all informants.
- **H2:** Low correlation for observer-caregiver, observer-youth, therapist-caregiver, therapist-youth and caregiver-youth pairs.
- **H3:** Moderate correlation across observer-therapist pair.

Aim 2: Examine predictors of informant discrepancies.
- **H1: Older youth age** predicts smaller observer-youth, therapist-youth, and caregiver-youth discrepancies.
- **H2: Youths' previous therapy experience** predicts smaller observer-caregiver, observer-youth, therapist-caregiver, and therapist-youth discrepancies.
- **H3: Therapist CBT orientation** predicts smaller observer-therapist discrepancies.
- **H4: More caregiver-in-session involvement** predicts smaller observer-caregiver, therapist-caregiver, and caregiver-youth discrepancies.

Method

Participants
- Youths (*N*=48) were recruited via ads offering free therapy for youth anxiety, depression, and behavior problems at a university-affiliated clinic.
- Therapists (*N*=28) were clinical, counseling, and social work doctoral students.

Participant Demographic Information

Characteristic	*M* (*SD*) or %
Youth	
Age	11.41 (2.61)
Gender	
Female	45.83%
Male	54.16%
Race/ethnicity	
Caucasian	60.42%
Asian	6.25%
African American	4.16%
Previous Therapy Experience	
Received therapy before	32.55%
Did not receive therapy before	65.10%
Caregiver	
Caregiver Therapy Involvement	
Not present to small segment	52.16%
Much to all of the session	18.43%
Therapist	
Cognitive-Behavioral Therapy Orientation	45.88%

Procedures
- Youths received a brief, six-session, principle-guided treatment for youth anxiety, depression, and behavior problems based on principles of CBT (Weisz et al., 2017). Sessions were primarily youth-focused, and caregivers received a brief recap at the end of each session.
- Coders were given a one-hour training on how to rate the CBTAM by the developer, but had prior experience using other established coding system.
- Therapists were informed about each item on the CBTAM. Youths and parents were not trained in how to rate the CBTAM.
- Youths, parents, and therapists completed the CBTAM after each session (*N* = 6). Observers coded 3 randomly selected sessions per youth.

Measures
- ***Therapy Process Observational Coding System (TPOCS; McLeod & Weisz, 2005):*** 9-item observational coding system that measures therapeutic alliance. Ratings of amount of time parent participated in sessions (i.e., -1 = "Individual not present," 1 = "Most/All of the session," 2 = "Much/Half of the session," 3 = "Small segment of session only") were binarized as "not present to small segment" versus "much to all of the session."

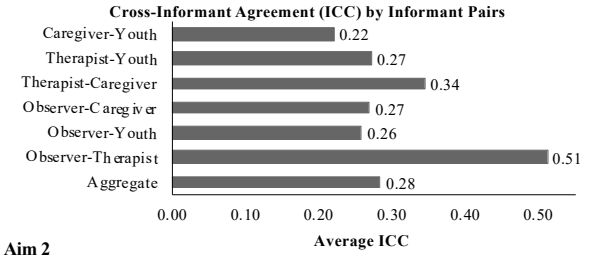
Method, cont.

- ***Cognitive-Behavioral Therapy Adherence Measure (CBTAM; Hawley, 2013):*** informant-rated adherence measure that asked how much (1 = "not at all" to 7 = "a lot") therapists did 19 core components of CBT for youth anxiety, depression, and behavior problems for a given treatment session.

Data Analytic Plan
- **Aim 1:** Calculate two-way, random intra-class correlation (ICC) across all informants and for each informant pair.
- **Aim 2:** Univariate and multiple regressions with each predictor predicting informant discrepancies, calculated as the absolute value of the standardized difference score (De Los Reyes & Kazdin, 2004).

Results

Aim 1: Caregivers reported the highest adherence (*M*=4.07, *SD*=1.06), followed by youths (*M*=3.59, *SD*=1.15), therapists (*M*=3.26, *SD*=0.61), and observers (*M*=2.51, *SD*=0.51).



Aim 2

H1: Youth Age as a Predictor of Informant

	UR *B* (*p*)	MR *B* (*p*)
Observer-Youth discrepancies	.07 (.393)	.04 (.715)
Therapist-Youth discrepancies	-.15 (.018)	-.21 (.004)
Caregiver-Youth discrepancies	.05 (.432)	.16 (.057)

Note. UR = univariate regression, MR = multiple regression

H2: Youth's Previous Therapy Experience as a Predictor of Discrepancies

	UR *B* (*p*)	MR *B* (*p*)
Observer-Caregiver discrepancies	.08 (.403)	.02 (.841)
Observer-Youth discrepancies	.06 (.493)	.05 (.615)
Therapist-Caregiver discrepancies	.01 (.896)	-.01 (.919)
Therapist-Youth discrepancies	.01 (.868)	.11 (.125)

H3: Therapist CBT Orientation as a Predictor of Discrepancies

	UR *B* (*p*)	MR *B* (*p*)
Observer-Therapist discrepancies	-.02 (.844)	-.02 (.844)

H4: More Caregiver-in-session Involvement as a Predictor of Discrepancies

	UR *B* (*p*)	MR *B* (*p*)
Observer-therapist discrepancies	.16 (.126)	.16 (.133)
Therapist-caregiver discrepancies	.00 (.955)	-.01 (.862)
Caregiver-youth discrepancies	.22 (.003)	.29 (.001)

Discussion

- Observer-therapist agreement was "fair" (Cichetti, 1994), suggesting it may be a promising alternative when observational coding is not feasible. ICCs across all informants and between most pairs of informants were "poor."
- **Older youth age** predicted lower discrepancies for the therapist-youth pair, and was marginally significant for the caregiver-youth pair. These findings suggests that youths may differ from adult informants on either their understanding of treatment content or how they rate adherence, or both.
- **More caregiver-in-session involvement** predicted greater discrepancies for the caregiver-youth pair, but not for the caregiver-therapist and caregiver-observer pairs.
- **Youth previous therapy experience** and **therapist CBT orientation** did not predict any informant pair discrepancies.
- Taken together, this pattern of findings suggests that comprehension of treatment content on the CBTAM may not be a primary predictor of informant discrepancies.
- Given that different informants received different training on how to rate adherence on the CBTAM, training, experience, and understanding of how to rate adherence may be a potential factor that may have contributed to discrepancies.

Limitations
- Therapists were aware that observers, youths, and caregivers would rate their adherence, which may have influenced how they rated their own adherence.
- The variables used were proxies for treatment content comprehension, and there were no actual assessments of treatment content familiarity, knowledge, or understanding.
- Participants were not given consistent training on how to rate adherence on the CBTAM.

Future Direction
- Research is needed to study whether the amount of training different informants receive on how to rate adherence impacts cross-informant agreement. Specifically, if adequate training is provided to all informants, can all informants reach acceptable reliability with the gold-standard observational coder?
- To further examine whether informant-rated adherence is a viable alternative to observational coding, future studies should examine whether discrepancies predict treatment outcomes.

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