

Assessing Fidelity of Implementation to the Family Check-Up:

Development and Validation of the
COACH Rating System

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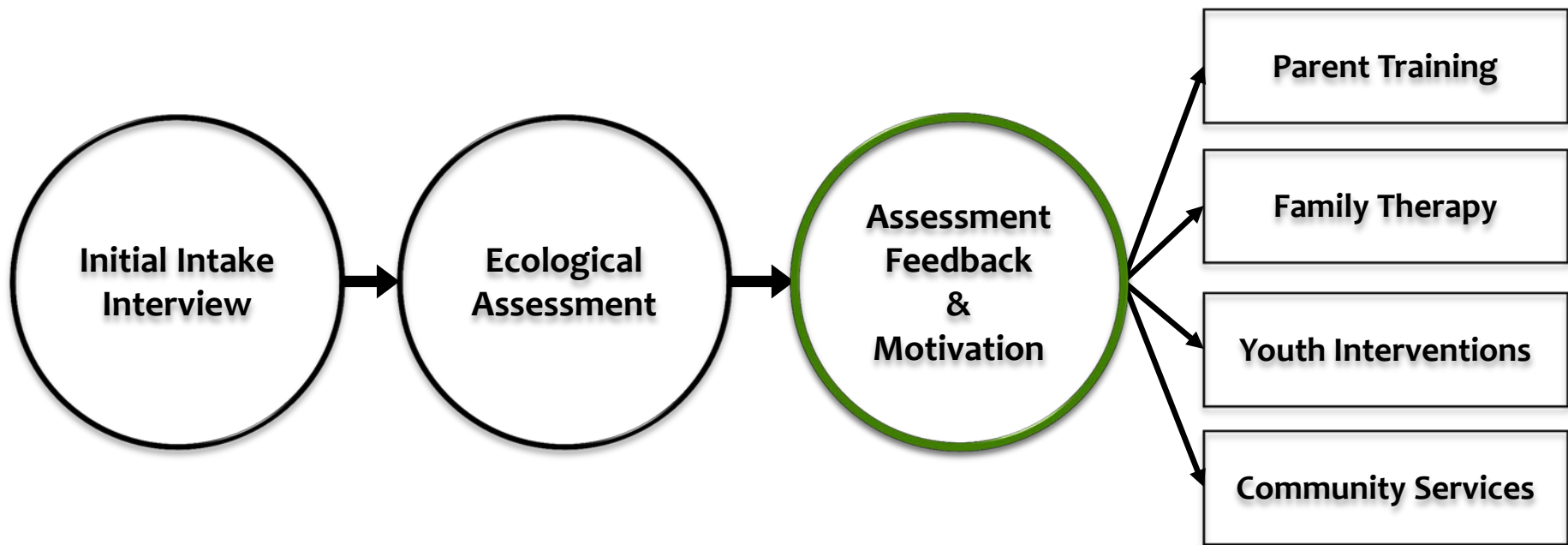


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The Family Check-Up (FCU)



Fidelity of Implementation

- Adherence - the degree to which the therapist utilizes prescribed procedures and avoids proscribed procedures
- Competence – the therapist’s skill, judgment, clinical acumen (Waltz, Addis, Koerner, & Jacobson, 1993)
- Adherence and competence are inextricably linked, such that it is impossible to competently deliver a specified treatment sans adherence to that treatment (Perepletchikova & Kazdin, 2005)
- A multifaceted construct (e.g., Carrol et al., 2007; Berkel et al., 2011)

Importance of Adequately Assessing Fidelity of Implementation

- Implementation of evidence-supported interventions is the greatest challenge to healthcare in the United States in the 21st Century (IOM, 2001)
- Training providers to deliver evidence-supported interventions with fidelity is perhaps the greatest challenge (McHugh & Barlow, 2010)
- Fidelity itself is an indicator of successful implementation (Proctor et al., 2009)
- Breakdown in fidelity threatens the internal validity of RCTs (e.g., Kazdin, 2003; Perepletchikova & Kazdin, 2005)
- Impossible to accurately conclude that insignificant treatment effects were due to problems with the intervention model or its delivery (Forgatch, Patterson, & DeGarmo, 2005; Schoenwald & Henggeler, 2004)

The COACH Rating System

- **Competent adherence to the FCU**
 - Conceptual understanding of the model
 - **O**bservant and responsive to client reactions and needs
 - **A**ctively structures sessions to optimize effectiveness
 - **C**arefully teaches and provides corrective feedback
 - **H**ope and motivation
 - Observed caregiver engagement
- 5 therapist dimensions are rated separately on a 9-point scale: needs work (1–3), acceptable work (4–6), good work (7–9)

COACH Rating Form

Good work			Acceptable work			Needs work		
9	8	7	6	5	4	3	2	1

Conceptually accurate in the FCU model		
<input type="checkbox"/> Demonstrates understanding of key family management skills <input type="checkbox"/> Accurate in technical details of FCU/EPC FB: Rationale for FB, begins with self assessment, uses rainbow sheet, provides FB on interaction tasks, video feedback, proposes follow-up options consistent with assessment results/collaborative discussion EPC: applies EPC teaching strategies/procedures (e.g., role plays) strategically, tailored to client, and consistent with assessment results <input type="checkbox"/> Prioritizes issues/areas of concern using a family focus	<input type="checkbox"/> Develops a “family story” from a family management perspective that matches assessment results and links different domains <input type="checkbox"/> FB: Links assessment findings/responses to in-session feedback/procedures EPC: Links session goals to assessment, feedback goals and concerns: ‘connects the dots’ <input type="checkbox"/> Provides accurate rationales for further treatment options/EPC components in ways that are meaningful to client and linked to the assessment results and collaboratively set goals <input type="checkbox"/> Uses research findings to support feedback/treatment options/EPC strategies appropriately	
Observant and responsive to client’s context and needs		
<input type="checkbox"/> Establishes and works from a collaborative set <input type="checkbox"/> Sensitive to client intellectual capacity/psychological mindedness <input type="checkbox"/> Sensitive to client emotional and adjustment status <input type="checkbox"/> Balances broader goals with immediate concerns of client; context <input type="checkbox"/> Is culturally sensitive and congruent	<input type="checkbox"/> Uses reflective listening and accurate empathy <input type="checkbox"/> Effectively “checks-in” to explore client issues, reactions, and understanding <input type="checkbox"/> Language and examples used are those of the client and reflect the family storyline FB: Ties feedback to examples (e.g., GTKY or interaction tasks) <input type="checkbox"/> Utilizes harm reduction strategies as needed to address imminent danger/abuse/crises	
Actively structures sessions to optimize effectiveness		
<input type="checkbox"/> Demonstrates collaborative leadership (e.g., flexible, checks in, adjusts) <input type="checkbox"/> Actively and collaboratively structures the session to maximize discussion of family management strategies <input type="checkbox"/> Has a plan in mind; stays focused on FB; appropriately redirects family	<input type="checkbox"/> Comes prepared with materials to facilitate in-depth discussion/enhance motivation <input type="checkbox"/> Uses materials appropriately: video and player, rainbow sheet, handouts/brochures, menu <input type="checkbox"/> Uses summaries, effective transitions, good pacing, weaves instruction as appropriate <input type="checkbox"/> Balances support for all family members present in session	



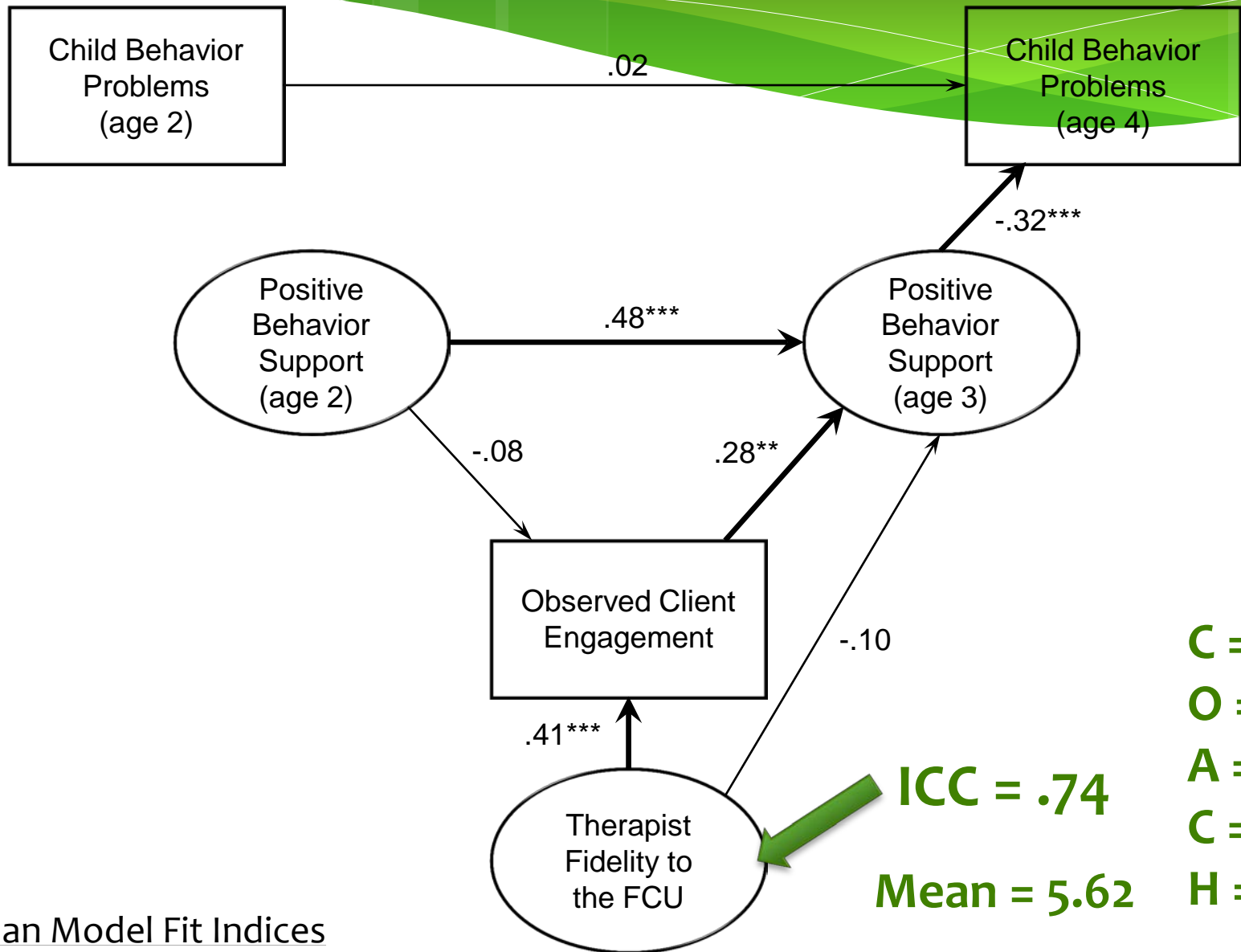
The Early Steps Project

Fidelity of Implementation in the Laboratory

Smith, Dishion, Shaw, & Wilson, in press, *Journal of Consulting & Clinical Psychology*

Participants

- Families from the Early Steps multisite prevention trial ($N = 731$) with toddler-aged children rated in the borderline or clinical level of behavior problems on the CBCL by caregiver(s)
 - 79 families included at age 2 (Smith, Dishion, Shaw & Wilson, under review, JCCP)
 - 46 families included at age 5 (Smith, Dishion, & Knoble, under review, BRAT)
- Therapists (Masters or Ph.D.) are well-trained and monitored
- FCU feedback sessions rated for fidelity of implementation using the COACH Rating System



C = .59
O = .72
A = .70
C = .57
H = .76

ICC = .74
Mean = 5.62

Bayesian Model Fit Indices

PPC: -8.666 | 26.191, $p = 0.250$

The Community Mental Health Project

Fidelity of Implementation in the Real World

Smith, Stormshak, & Kavanagh, under review, *Behavior Research and Therapy*

Recruitment & Randomization

- **Effectiveness-Implementation Hybrid Design**
 - 4 community mental health agencies in the greater Portland, OR area
- **Random Assignment of 40 Master's Level Therapists**
 - FCU = 20, CTAU = 20
 - Clinical experience = 2.85 yrs
 - Current agency = 1.20 yrs
- **Participating Families**
 - Treatment seeking
 - Youth ages 5–17 ($M = 11.6$ yrs, $SD = 2.6$)
 - Approached by therapists in each condition

Fidelity of Implementation

- 32/33 FCU Feedback sessions available
 - 13/20 therapists completed at least one FCU
 - Mode = 2 (Range 1 – 4 completed)
- Overall COACH Mean Score = 4.46 (5.62 in Early Steps)
 - By therapist: Range 2.67 – 5.50
 - 10/13 Therapists achieved a mean COACH score greater than 5
- Overall COACH ICC = .73 (.74 in Early Steps)

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An Experimental Study Improving Reliability of Ratings from the COACH System

Smith, Dishion, & Knoble, under review, *Behavior Research and Therapy*

Methods

Hypotheses

- We can improve reliability of fidelity ratings by:
 - Using coders who are trained to deliver the FCU
 - Providing the family's assessment data to the coders when rating the feedback session

Procedures

- 53 feedback sessions (45 coded and analyzed) of families from the 79-family clinical subsample of FCU engagers at age 2
- Random assignment to assessment condition; 20% double-coded
- Coders: 3 advanced graduate students with training and experience in the FCU, trained to reliability in the COACH

Results

	M	SD	Full Sample ICC	Assessment ICC		No Assessment ICC
<u>C</u> onceptually accurate	5.06	.95	.70	.76		.43
<u>O</u> bservant and responsive	5.15	1.23	.67	.79		.46
<u>A</u> ctively structures the session	4.74	1.11	.73	.79		.60
<u>C</u> orrective feedback	4.76	1.35	.60	.71	*	.30
<u>H</u> ope and motivation	4.65	1.48	.65	.74		.44
COACH total score	4.87	1.11	.71	.71	*	.51
Client engagement	5.03	1.33	.78	.86		.65

* significant difference (permutation test)

Conclusions and Implications

Study 1: Multisite Randomized Prevention Trial

- Fidelity of implementation, rated using the COACH, is predictive of improved parent and child outcomes
- Confident in drawing conclusions regarding intervention effects

Study 2: Community Effectiveness-Implementation Trial

- Community providers can be trained to faithfully implement the FCU

Study 3: Refinement of the COACH Rating Procedures

- Coders trained in the FCU model produce more reliable fidelity scores
- In the FCU, Therapists' in-session behaviors/decisions are *inextricably* linked to the family's ecological assessment results
- Feasibility: Design closely resembles real-world use of the COACH

Future Directions

- Examine measurement/reliability equivalence of session segments compared to full-session ratings
- Reliable sensitivity to differentiate between therapists of various levels of training
- Differentiate the FCU from other youth and family services
- Routine use in community implementation
- How the COACH will be used in a larger fidelity of implementation monitoring system

Thank you!

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