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BRIEF REPORT

The Therapy Process Observational Coding System for Child Psychotherapy Strategies Scale

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Most everyday child and adolescent psychotherapy does not follow manuals that document the procedures. Consequently, usual clinical care has remained poorly understood and rarely studied. The Therapy Process Observational Coding System for Child Psychotherapy–Strategies scale (TPOCS–S) is an observational measure of youth psychotherapy procedures designed to support the study of usual clinical care by providing a means of characterizing it. Coders independently rated usual care therapy sessions conducted with 43 children (aged 8–15 years) diagnosed with anxiety and depressive disorders. The TPOCS–S showed good interrater reliability, its 5 subscales (e.g., Behavioral, Cognitive, Psychodynamic, Client-Centered, Family) showed good internal consistency, and analyses supported TPOCS–S validity.

Clinical trials with children have generated a number of evidence-based treatments (EBTs) with intervention procedures documented in manuals, but most everyday child treatment does not take place in clinical trials and the procedures used are not well documented. Most everyday treatment is individually structured by diverse therapists drawing from an array of theoretical perspectives and applying often-diverse blends of procedures that can differ not only across therapists but also from child to child (Weisz, 2004b). This array of procedures, sometimes referred to as *usual care* (UC), is not well understood or characterized in research to date, in part because of measurement limitations in the field. In this

article, we describe a new observational measure designed to fill this gap, we report on the measure's psychometric properties, and we present findings illustrating the measure's potential for research on UC.

The need for good measurement of UC in everyday practice is illustrated by the current state of effectiveness research with children. Failure to assess treatment procedures in the effectiveness studies performed to date has significantly limited the information value of these studies for the field. The problem is illustrated in a recent meta-analysis of randomized trials directly comparing EBTs to UC with youth. In this meta-analysis, Weisz, Jensen Doss, and Hawley (2006) found that the results generally favored EBTs but that, in a subset of studies, UC equaled or outperformed EBTs. Unfortunately, little more could be learned about the UC treatments that fared so well because the procedures had not been documented. These findings highlight the need for a better understanding of the procedures used in UC, and thus for a method to identify those procedures.

Until recently, child therapy researchers had not produced any measure capable of quantifying therapeutic interventions in UC. Weersing, Weisz, and Donenberg

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(2002) addressed this gap by developing the Therapy Procedures Checklist (TPC)¹ designed to assess therapists' reports of the techniques they employ with child clients in UC. Although the TPC has significant strengths, its reliance on self-report may reduce its ability to provide an objective account of actual therapist behavior (Chevron & Rounsaville, 1983). The potential limitations of therapist self-report can be addressed by relying on direct observation by trained observers, with coding assessed for reliability. Until such a coding system is developed, it may remain difficult to document objectively the procedures used in UC or to make those procedures the subject of rigorous research.

Research that identifies the therapy procedures used in UC may benefit scientists and practitioners (Garland, Hurlburt, & Hawley, 2006). Such research may identify (a) the ways in which UC procedures are associated with contextual variables (e.g., treatment settings, therapist background), (b) the extent to which treatment procedures employed in UC do or do not match those of various EBTs, (c) which treatment procedures associated with EBTs are associated with desirable child outcomes when delivered in UC settings, and (d) whether intervention procedures used in UC but not found in EBTs are associated with favorable child outcomes. Findings showing a convergence of science and practice, such as evidence that certain EBT practices are associated with good outcomes in UC, could be used to inform efforts to disseminate EBTs. By contrast, findings showing a divergence of science and practice, such as when therapeutic interventions not listed among the components of EBTs are associated with beneficial effects in UC, may constitute practice-based evidence that can stimulate and guide development of new, effective treatment approaches (Garland et al., 2006; Weisz, 2004b).

To assess therapy procedures in UC, we developed the Therapy Process Observational Coding System for Child Psychotherapy—Strategies Scale (TPOCS–S; McLeod, 2001). Designed to provide a means of objectively describing UC, the TPOCS–S differs from previous measures in that it (a) yields quantitative data derived from direct observations of treatment sessions, (b) organizes individual treatment procedures within categories reflecting prominent theoretical orientations in the field, and (c) assesses how extensively specific therapeutic interventions are employed.

¹The original version of the TPC consisted of three scales: Cognitive, Behavioral, and Psychodynamic, which showed psychometric strength in the initial study by Weersing et al. (2002). The TPC authors later added a Family scale consisting of 12 items. The revised version of the TPC consists of 62 items, which represent therapy techniques that map onto one of the four scales. A recent study by Baumann, Kolko, Collins, and Herschell (2006) provided support for the psychometrics of the three original TPC scales and the newer Family scale.

In this article, we describe development of the TPOCS–S and examine its psychometric properties within UC for youths with internalizing disorders. Internalizing disorders are a useful initial focus because these disorders are typically treated via individual therapy with children; in contrast, treatments for externalizing disorders often involve parent-focused interventions. Moreover, most of the empirically supported EBTs for internalizing disorders are interventions delivered by therapists to youth in clinic offices (Weisz, 2004b), whereas most empirically supported EBTs for externalizing conditions tend to be environmental interventions directed at parents in the home (Weisz 2004b).

METHODS

Participants

Child participants. Participants were 43 children from six community mental health clinics participating in the Youth Anxiety and Depression Study (YADS; Weisz, 2004a).² Table 1 provides the demographic characteristics of these participants. YADS was designed to evaluate the effectiveness of cognitive-behavioral therapy (CBT) relative to UC. As one aspect of YADS, children who had depressive or anxiety disorders received UC from therapists employed in the clinics, and therapy sessions were recorded. Child participants met *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [DSM–IV]; American Psychiatric Association, 1994) criteria for an anxiety or depressive disorder that clinic staff, project staff, and parents identified as the primary treatment focus. Children with mental retardation or psychotic symptoms were excluded.

Therapist participants. The 36 therapists (M age = 32.15, SD = 7.82, range = 25–55; 13.88% male) were 36.10% Caucasian, 36.10% Latino, 8.30% Asian/Pacific Islander, 8.30% mixed, 2.80% African American, and 8.30% not reported. Therapists were 13.90% social workers, 66.70% master's-level psychologists, and 11.10% doctoral-level psychologists; mean time in training and clinical practice was 6.15 years (SD = 3.03).

Coders. The coding team consisted of five clinical psychology graduate students and a licensed clinical psychologist (3 men, 3 women). Coders ranged in age

²For YADS, 268 clinically referred youth were assessed for eligibility. A total of 105 youth were enrolled in YADS who were then randomly assigned to manualized CBT (n = 56) or usual clinical care (n = 49). All youth from the usual care group who had audible tapes were included in the present sample. Of the youth not enrolled in YADS, 137 did not meet inclusion criteria and 26 were not enrolled for other reasons (e.g., moved away).

TABLE 1
Characteristics of Child Participants

<i>Child Participant Characteristics</i>	<i>Total Sample M SD</i>
Age (Years)	10.90 (2.02)
Gender (% Male)	48.83%
Family Annual Income	
<15,000	39.50%
15,000–29,999	23.30%
≥30,000	37.20%
Ethnic and Cultural Background	
African American	16.30%
Caucasian	30.20%
Latino	37.20%
Mixed	7.00%
Other	2.30%
Pretreatment <i>DSM-IV</i> Diagnoses	
Dysthymic Disorder	20.90%
Conduct Disorder	14.00%
Generalized Anxiety Disorder	23.30%
Major Depressive Disorder	20.90%
Minor Depressive Disorder	23.30%
Oppositional Defiant Disorder	44.20%
Separation Anxiety Disorder	46.50%
Social Phobia	30.20%
Specific Phobia	67.40%
CBCL Total Problem Scale	68.86 (8.17)
CBCL Internalizing Scale	68.00 (8.42)
CBCL Anxious/Depressed Scale	67.97 (9.43)
CBCL Externalizing Scale	64.30 (10.85)

Note. *DSM-IV* = *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.); CBCL = Child Behavior Checklist.

from 24 to 34 ($M = 29.80$, $SD = 3.11$) and included five Caucasians and one Latina.

Procedures

Children and their parents were interviewed twice: at pretreatment shortly after the clinic intake and at posttreatment. At pretreatment, parents and children provided written consent/assent, demographic information, and separately completed measures. Posttreatment assessment included the same measures as the pretreatment assessment. The study was Institutional Review Board approved.

Development of the TPOCS-S

The TPOCS-S (McLeod, 2001) is a 31-item measure designed to provide the field with a coding system capable of objectively characterizing therapeutic interventions. The TPOCS-S was developed via a four-step process.

Step 1: Subscale development. The process of identifying the treatment domains relevant to child therapy began with the TPC (Weersing et al., 2002).

The TPC includes Cognitive, Behavioral, Psychodynamic, and Family scales, and these were used as TPOCS-S subscales. In addition, a Client-Centered subscale was added because client-centered interventions are endorsed by many child therapists and thought to promote the therapeutic alliance (Kazdin, Siegel, & Bass, 1990).

Step 2: Item development. Next, items for the subscales were developed. Two measures were used to generate TPOCS-S items: the 62-item TPC (Weersing et al., 2002) and the 26-item Therapist Behavior Rating Scale (TBRS; Hogue, Rowe, Liddle, & Turner, 1994). TPC items that represented observable therapist behavior (e.g., “Identifying and challenging irrational beliefs, attributions, or schemas”) were converted into TPOCS-S items. Thirteen TBRS items were used for the TPOCS-S (e.g., Encourages Affect). In addition to items that mapped onto TPOCS-S subscales, 6 items were added—Session Goals, Treatment Goals, Previous Themes, Role-Playing, Homework, and Play Therapy. These items represent interventions often evident in therapy that are not associated with a specific theoretical orientation (Weersing et al., 2002).

The resulting item pool was reviewed by university clinical psychology faculty and practicing clinicians who were asked to classify each item on one of the five subscales (Cognitive, Behavioral, Psychodynamic, Family, Client-Centered). Items that were not classified correctly or found to be unclear were revised. This group suggested that (a) a Psychoeducation item should be added, and (b) both the Psychoeducation item and the Encourages Affect item did not fit on a single subscale. Therefore, we included both Psychoeducation and Encourages Affect, and we did not place either on any of the subscales.

Step 3: Scoring strategy. The TPOCS-S scoring strategy involves extensiveness ratings of therapeutic interventions designed to measure the degree to which therapists use specific therapeutic interventions during a therapy session. The TPOCS-S scoring strategy was based directly on the scoring strategy used in the TBRS (Hogue et al., 1994). Coders make extensiveness ratings indicating the extent to which therapists engage in each therapeutic intervention during an entire session; the ratings use a 7-point Likert scale ranging 1 (*not at all*) to 3 (*somewhat*) to 5 (*considerably*) to 7 (*extensively*). Extensiveness ratings comprise two key components: thoroughness and frequency. Thoroughness refers to the depth, complexity, or persistence with which the therapist engages in a given intervention; frequency refers to how often a therapist delivers a given intervention during a session (see Hogue, Liddle, & Rowe,

1996). Both thoroughness and frequency are considered in making a rating; therefore, extensiveness ratings provide quantity, or dosage, information about each intervention.

Step 4: Pilot coding. Next, a coding manual was produced and two graduate student coders independently coded 25 UC therapy sessions. Items that demonstrated “poor” reliability—intraclass correlation (ICC) (2, 2) < .40—at this early stage were refined. Following Cicchetti (1994), ICCs below .40 reflect “poor” agreement, ICCs from .40 to .59 reflect “fair” agreement, ICCs from .60 to .74 reflect “good” agreement, and ICCs .75 and higher reflect “excellent” agreement. During the piloting phase, coders provided feedback on item content and definitions, which was used to refine the TPOCS–S items. Following completion of the pilot phase, a final version of the TPOCS–S coding manual was produced (McLeod, 2001).

TPOCS–S scoring and session sampling procedures. Four sessions were randomly sampled from each case. To sample different therapy phases, each case was divided into beginning, middle, and end stages by dividing the total number of sessions by 3. One session was randomly selected from the beginning (excluding the first session) and end (excluding the last session) stages, and two sessions selected from the middle stage. This procedure was followed except in two situations: (a) when fewer than four sessions were available all tapes were coded, or (b) if a case had multiple therapists, two sessions from each therapist were coded. In all, 166 sessions were coded.

Coder training consisted of reading the coding manual, review of specific session segments, and practice scoring of sessions. Coders were approved for coding after their ratings achieved acceptable interrater reliability at the individual item level, $ICC(2,2) \geq .60$. Once coding commenced, tapes were randomly assigned to coders, and weekly meetings were held to prevent rater drift. Coders rated entire therapy sessions; each therapy session was double-coded.

Other Measures

The Diagnostic Interview Schedule for Children (4.0; Shaffer et al., 1996) was administered to parents and children; *DSM–IV* diagnoses were obtained through combined parent- and child-report. The youths showed substantial comorbidity, with a mean of 2.83 *DSM–IV* diagnoses ($SD = 1.37$, range = 1–7). Child symptomatology was assessed via the Child Behavior Checklist (Achenbach, 1991).

RESULTS

Reliability of the TPOCS–S

Interrater reliability was calculated across all coders using the model ICC(1, 6), based on a one-way random effects model (Shrout & Fleiss, 1979). These correlations provide a reliability estimate of the mean scores of all coders considered as a whole, and allow for generalizability of the results to other samples. Interrater reliability was “good” to “excellent” (Cicchetti, 1994) for the items (ICCs ranged .66–.95; $M = .84$, $SD = .08$) and for the subscales (ICCs ranged .79–.97; $M = .89$, $SD = .07$). We also examined the internal consistency of the TPOCS–S subscales. The internal consistency of each TPOCS–S subscale was acceptable, with alphas ranging from .74 to .86 (see Table 2).

Validity of TPOCS–S

To assess the validity of the TPOCS–S, we assessed the internal consistency of the TPOCS–S subscales relative to the correlation of the subscales with one another. Subscale scores were produced by calculating the mean score for all sessions from a case on each of the TPOCS–S items and then averaging together items on each subscale to produce a score on the 7-point scale. As seen in Table 3, the internal consistency of each TPOCS–S subscale was greater than that subscale’s correlations with other subscales. Of note, the Client-Centered subscale was significantly correlated with the Cognitive ($r = .35$, $p < .01$), Behavioral ($r = .15$, $p < .05$), Psychodynamic ($r = .36$, $p < .01$), and Family ($r = .25$, $p < .01$) subscales. The Cognitive subscale was significantly correlated with the Psychodynamic ($r = .23$, $p < .01$) subscale; the Behavioral subscale was significantly correlated with the Family ($r = .26$, $p < .01$) subscale. The Cognitive and Behavioral subscales evidenced the greatest overlap ($r = .60$, $p < .01$), indicating that there may be utility in combining the subscales for some purposes (as in CBT).

Characterization of Treatment Procedures Using the TPOCS–S

Our last set of analyses used the TPOCS–S to characterize the treatment procedures used in UC. Treatment episodes in UC averaged 17.67 sessions ($SD = 11.81$, $Mdn = 15.00$, range = 3–66), and 34.52 weeks ($SD = 24.42$, $Mdn = 25.00$, range = 8–126). Children attended 161 of the 166 coded sessions (97.00%); 37 primary caregivers attended at least one session, and 32 attended at least two. A comparison of the TPOCS–S subscale scores revealed that UC therapists used a variety of procedures consistent with multiple theoretical orientations,

TABLE 2
TPOCS-S Item Descriptions, Item Interrater Reliability, and Subscale Internal Consistency

<i>TPOCS-S Item Description</i>	<i>ICC M</i>	<i>M (SD)</i>
<i>Cognitive subscale</i> ($\alpha = .80$)	.90	
<i>General cognitive focus</i> : Extent to which the therapist employs cognitive interventions in a therapy session.	.90	2.29 (1.30)
<i>Cognitive education</i> : Teaches client the cognitive model (e.g., thoughts influence behavior)/Identifies how the cognitive model applies to a specific aspect of the client's life.	.85	1.33 (.75)
<i>Cognitive distortion</i> : Teaches and/or encourages the client to identify and/or restructure cognitive distortions.	.85	1.45 (.94)
<i>Coping skills</i> : Teaches and/or encourages the client to use coping skills (i.e., social, problem-solving, assertiveness skills).	.86	2.00 (1.25)
<i>Behavioral subscale</i> ($\alpha = .74$)	.87	
<i>General behavioral focus</i> : Extent to which the therapist employs behavioral interventions.	.82	2.52 (1.20)
<i>Functional analysis of behavior</i> : Performs functional analysis of a target behavior/Teaches A-B-C (Antecedent-Behavior-Consequences) model.	.76	1.72 (1.00)
<i>Relaxation interventions</i> : Teaches/encourages client to use relaxation, meditation, or pleasant mental imagery.	.89	1.14 (.53)
<i>Respondent interventions</i> : Develops a hierarchy, employs mastery ratings, and/or performs an exposure (e.g., system desensitization, flooding, graduated exposures).	.66	1.10 (.35)
<i>Operant interventions</i> : Teaches principles of operant interventions, sets up operant system, and/or employs operant intervention.	.89	1.62 (1.08)
<i>Modeling</i> : Teaches specific skills using observational learning methods.	.82	1.38 (.78)
<i>Psychodynamic subscale</i> ($\alpha = .81$)	.90	
<i>Psychodynamic focus</i> : Extent to which the therapist employs psychodynamic interventions.	.88	2.38 (1.21)
<i>Addresses transference</i> : Discusses or interprets the client's interaction with the therapist.	.85	1.26 (.65)
<i>Explores past</i> : Discusses client's past experiences.	.88	1.60 (.99)
<i>Interpretation</i> : Comments on client behavior and/or relates that behavior to an aspect of the client's characteristics, general functioning, and/or past experiences.	.83	2.23 (1.22)
<i>Family subscale</i> ($\alpha = .86$)	.97	
<i>General family focus</i> : The extent to which the therapist employs family interventions in a therapy session.	.95	2.86 (1.67)
<i>Targets other participants</i> : Participants other than the target child are asked to modify their affect, behavior, cognitions.	.95	2.86 (1.77)
<i>Recruits others</i> : Attempts to recruit/retain parents and other supports (e.g., family members) for future sessions.	.83	1.31 (.71)
<i>Parenting style</i> : Helps and/or encourages parents to modify their parenting practices.	.92	1.69 (1.18)
<i>Multiparticipant interactions</i> : Establishes, teaches, and discusses in-session multiparticipant interactions.	.94	2.00 (1.45)
<i>Client-centered subscale</i> ($\alpha = .84$)	.79	
<i>General client-centered focus</i> : The extent to which the therapist validates the client's feelings, provides warmth, and/or elicits the client's perspective.	.72	4.20 (1.01)
<i>Validates client</i> : Validates client's feelings and/or treatment goals.	.68	2.38 (1.12)
<i>Positive regard</i> : Responds to client in warm and compassionate manner.	.83	3.09 (1.29)
<i>Client perspective</i> : Attempts to understand client's point of view/Probes for client's unique perspective.	.66	4.27 (.97)
<i>General items</i>		
<i>Encourages affect</i> : Discusses affect and/or encourages client to express affect.	.85	3.13 (1.25)
<i>Homework</i> : Assigns and/or reviews homework assignments.	.88	1.70 (1.22)
<i>Previous themes</i> : Comments upon themes from previous sessions/Builds on past successes in therapy.	.81	2.02 (1.12)
<i>Play therapy</i> : Therapist utilizes play/art as a form of therapy.	.94	2.31 (1.59)
<i>Psychoeducation</i> : Teaches client about the nature of their problem, or about general psychological principles (e.g., child development, parent-child relations).	.84	2.11 (1.19)
<i>Role-playing</i> : Encourages client to participate in hypothetical enactments.	.91	1.32 (.85)
<i>Session goals</i> : Establishes/reviews session goals.	.75	2.06 (1.11)
<i>Treatment goals</i> : Establish treatment goals/Encourage client to discuss treatment goals.	.86	2.57 (1.52)

Note. TPOCS-S = The Therapy Process Observational Coding System for Child Psychotherapy-Strategies scale; ICC = intraclass correlation coefficient.

TABLE 3

TPOCS-S Subscale Alphas and Correlations Among Subscales

TPOCS-S Subscales	1	2	3	4	5
1. Cognitive	.80	.60**	.23**	.06	.35**
2. Behavioral		.74	.11	.26**	.15*
3. Psychodynamic			.81	.03	.36**
4. Family				.86	.25**
5. Client-Centered					.84

Note. The numbers in bold represent the internal consistency of the TPOCS-S subscales. TPOCS-S = The Therapy Process Observational Coding System for Child Psychotherapy-Strategies scale.

* $p < .05$. ** $p < .01$.

although they generally favored nonbehavioral (e.g., client-centered) interventions (see Figure 1).

DISCUSSION

In this study, we described the development of the TPOCS-S and illustrated its potential by characterizing UC for a sample of youths with internalizing disorders. The TPOCS-S shows considerable psychometric strength. In addition, the measure captures a broad array of therapeutic interventions from multiple treatment domains and is based on direct observation of therapy sessions, so the

TPOCS-S provides a more comprehensive, and less subjective, description of UC compared to the available alternatives. Thus, the TPOCS-S appears to have the potential to address a significant measurement gap in the field and to contribute to research on UC.

Psychometric data presented here provide support for the reliability of TPOCS-S items, the internal consistency of the subscales, and the validity of the subscales. The findings documented moderate associations among the subscales, with the strongest associations for the two that are most closely linked conceptually: Cognitive and Behavioral. Some behavioral and nonbehavioral subscales were significantly correlated (e.g., Cognitive and Psychodynamic, $r = .23$; Cognitive and Client-Centered, $r = .35$). Although these correlations were lower than the correlation between the Cognitive and Behavioral subscales, they do suggest some co-occurrence of behavioral and nonbehavioral interventions in UC. Indeed, the correlations indicate that therapists may use client-centered interventions with behavioral and nonbehavioral approaches, possibly to engage youth in treatment. Overall, this pattern supports the construct validity of the TPOCS-S, with stronger associations between subscales that are more closely related conceptually than among subscales that are less closely related conceptually.

The current findings contribute to a growing body of research that supports the validity of the TPOCS-S

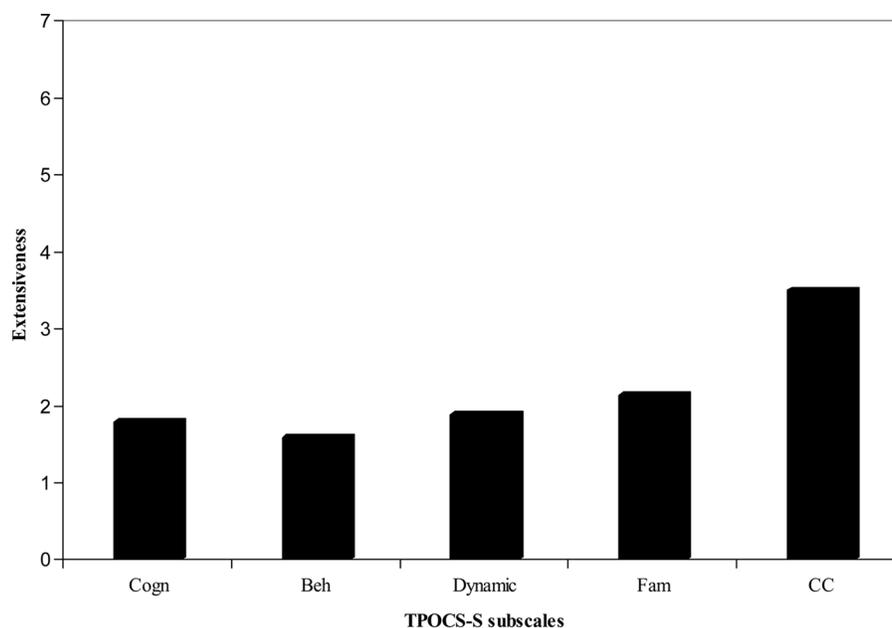


FIGURE 1 Mean scores for the Therapy Process Observational Coding System for Child Psychotherapy-Strategies (TPOCS-S) subscales: (a) Cognitive subscale (Cogn; $M = 1.79$, $SD = .62$), (b) Behavioral subscale (Beh; $M = 1.58$, $SD = .42$), (c) Psychodynamic subscale (Dynamic; $M = 1.89$, $SD = .66$), (d) Family subscale (Fam; $M = 2.14$, $SD = .77$), and (e) Client-Centered subscale (CC; $M = 3.50$, $SD = .67$). Therapists were rated significantly higher on the Client-Centered subscale compared to the Cognitive, $t(42) = 15.79$, $p < .01$; Behavioral, $t(42) = 16.89$, $p < .01$; Psychodynamic, $t(42) = 15.00$, $p < .01$; and Family, $t(42) = 9.87$, $p < .01$, subscales. Therapists were also rated significantly higher on the (a) Family than Behavioral subscale, $t(42) = 4.76$, $p < .01$; (b) Psychodynamic than Behavioral subscale, $t(42) = 2.66$, $p < .05$; (c) Cognitive than Behavioral subscale, $t(42) = 3.27$, $p < .01$; and (d) Family than Cognitive subscale, $t(42) = 2.46$, $p < .05$.

subscales. In two published clinical trials, the TPOCS-S subscales correctly identified expected differences between groups. First, the TPOCS-S Cognitive, Behavioral, and Family subscales were used to assess treatment integrity in an efficacy trial in which youth diagnosed with anxiety disorders were randomized to child-focused CBT (CCBT) or family-focused CBT (FCBT; see Wood, Piacentini, Southam-Gerow, Chu, & Sigman, 2006). The TPOCS-S results indicated that FCBT was rated significantly higher than CCBT on the Family subscale and that there were no differences between FCBT and CCBT on the Cognitive or Behavioral subscales. These findings are consistent with the content of the two groups, and thus support the construct validity of the subscales, particularly the Family subscale. Second, the TPOCS-S CBT, Family, Psychodynamic, and Client-Centered subscales were used to assess treatment integrity in an effectiveness trial. Fifty-seven youth with *DSM-IV* depressive disorders were randomized to manual-guided CBT or UC (see Weisz et al., 2009). Compared to UC, the CBT group had significantly higher ratings on the CBT subscale; compared to the CBT group, UC had significantly higher ratings on the Psychodynamic and Family subscales. The ability of the TPOCS-S subscales to differentiate between treatments in lab- and practice-based studies supports the construct validity of the subscales.

While our findings illustrate the potential of the TPOCS-S for studying UC, a few limitations warrant attention. First, it is possible that nesting created dependencies within the data that may have influenced the findings, so these findings should be replicated with a larger sample that provides enough observations to estimate nesting effects. Second, in developing the TPOCS-S we focused on developing a manageable subset of treatment procedures with potential value to the field. However, given the multitude of interventions utilized in UC, it is plausible that some therapeutic interventions used by clinicians in UC were not included in the measure. Third, because most clinicians had only one case in the study, we were not able to identify typical or characteristic patterns of the clinicians; thus, the patterns identified through this study may not generalize across cases for any one clinician. Finally, no sample of therapists and settings can be completely representative of all UC. It is clear that UC cannot be characterized in any universal sense, given the diverse forms it may take. It will always be the case that the shape of UC will differ depending on the therapists, the clients they treat, and the context in which treatment takes place.

Implications for Research, Policy, and Practice

Together, the psychometric data supporting the reliability and validity of the TPOCS-S have important

implications for the study of UC. First, the TPOCS-S is capable of characterizing therapeutic interventions. Second, the TPOCS-S is able to accurately capture variation in the use of therapeutic interventions, which is important in research attempting to link process to outcome. In the future, additional research using the TPOCS-S may contribute usefully to an expanded body of evidence on reliability, validity, and utility, including relations between treatment procedures and outcomes.

Taken together, the psychometric and substantive findings presented here suggest themes for future research, building on the potential of the TPOCS-S to clarify the nature of UC. Therapists in our sample delivered a broad range of therapeutic interventions as evidenced by the low item and subscale scores. This diversity may be due to our mix of children, therapists, and settings, or it may reflect a tendency by many UC clinicians to use a multifaceted approach to treatment. Further research with larger, strategically selected samples will be needed to pinpoint the source of this variability in treatment procedures.

Another theme for future research involves enhancing the information value of UC as a comparison condition in tests of EBTs. In such tests, where EBTs are found to outperform UC, it will be important to clarify what the UC procedures are that are improved upon by the introduction of more structured, manual-guided interventions. In those cases where UC outperforms EBTs, it will be important to clarify what the UC procedures are that have fared so well and thus may warrant testing in their own right. TPOCS-S applications like these can help promote a shift from viewing UC as a mere control condition not warranting documentation to viewing UC as a source of "practice-based evidence," and thus as a learning opportunity and a tool in the science of clinical care.

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