Psychotherapy Volume 33/Summer 1996/Number 2

TREATMENT ADHERENCE PROCESS RESEARCH IN FAMILY THERAPY: A RATIONALE AND SOME PRACTICAL GUIDELINES

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Treatment adherence research has recently established a permanent niche in psychotherapy outcome research as a means for testing whether interventions have been implemented as intended. Advanced-level adherence methods allow investigators to move beyond treatment integrity questions regarding model fidelity and toward treatment process questions regarding therapeutic technique and intervention dosage. Though still in the developmental stage, treatment adherence process *procedures appear to be congruent with the methods, goals, and theoretical framework that characterize contemporary psychotherapy process research. Because adherence process research is virtually absent from the family therapy research literature, practical guidelines are presented for conducting observational-based adherence research on family therapy models, using the example of Multidimensional Family Therapy.*

There is pleasant irony in the fact that Lewis Carroll's Dodo bird, whose species is remarkable for having been haplessly unfit for survival, is the unlikely progenitor of a robust legacy in psychotherapy research. Over two decades ago Luborsky, Singer, and Luborsky (1975) challenged the psychotherapy community by concluding that different models of psychotherapy had demonstrated little or no differential effectiveness in treating psychological problems. This and subsequent reviews of psychotherapy outcome studies (Shapiro & Shapiro, 1982; Smith & Glass, 1977; Smith, Glass, & Miller, 1980), particularly reviews of efficacy studies that directly compare different models of treatment (Lambert & Bergin, 1994), revealed that competing models by and large produced relatively equivalent gains in client well-being. In effect, the Dodo bird verdict had been reached: "Everyone has won and all must have prizes" (Luborsky et al., 1975). This inglorious judgment troubled members of all therapy camps in a manner reminiscent of Eysenck's (1952) assertion that psychotherapy fares no better than spontaneous remission in improving client symptoms. Eysenck's controversial findings initiated the clarion call for a generation of investigators to employ more rigorous, methodologically sound research standards in the cause of

Preparation of this article was supported by grants to Howard A. Liddle from the National Institute on Drug Abuse (Grant Nos. P50-DAO7697 and T32-DAO7297) and was completed in conjunction with a NIDA-sponsored postdoctoral fellowship awarded to the first author.

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proving that psychotherapy has substantive beneficial effects (Brown, 1987; Hill & Corbett, 1993). In similar fashion, Luborsky's verdict has marshalled a groundswell of research efforts geared toward establishing that therapeutic models have intervention-specific, distinguishable effects on client outcome (Stiles, Shapiro, & Elliott, 1986).

Efforts to demonstrate differential clinical efficacy, and thereby overturn the Dodo verdict, include a diverse range of pursuits: improved comparative efficacy research (Basham, 1986; Kazdin, 1986), aptitude-treatment interaction studies (Beutler, 1991; Shoham-Salomon & Hannah, 1991), and psychotherapy process studies attempting to link process and outcome (Greenberg & Pinsof, 1986; Orlinsky, Grawe, & Parks, 1994). Notable among these developments has been the growing interest in *treatment adherence research*. Treatment adherence research refers to the methodological strategies used to document that a given therapy has genuinely been carried out in accordance with essential theoretical and procedural aspects of the model. As the primary means for ascertaining whether therapists implement therapeutic models as intended, adherence research is an essential element of clinical efficacy research (Kazdin & Bass, 1989). Although it would seem prerequisite to prove that a therapy has occurred before making statements about its effects, treatment adherence is a relative newcomer to the efficacy research scene. Kazdin, Bass, Ayers, and Rodgers (1990) completed an exhaustive review of 233 studies of child and adolescent psychotherapy and found that only 19% reported efforts to monitor treatment implementation, provide ongoing supervision, or evaluate therapist performance. Reviews of treatment outcome studies on other populations have uncovered similarly infrequent reports of treatment adherence (Moncher & Prinz, 1991; Yeaton & Sechrest, 1981).

Despite this slow start, treatment adherence has established a permanent niche within treatment outcome research. To this point, adherence procedures have been utilized in the service of two related agendas. First, they verify the level of treatment fidelity for clinical efficacy trials (Moncher & Prinz, 1991). Adherence research provides a manipulation check of the independent variable, testing whether treatments are implemented as intended and whether competing treatments are sufficiently different from one another. Second, adherence procedures are invariably utilized to monitor whether manualized therapy models are executed in accordance with documented protocols. In fact, the recent demand for adherence checks can be attributed in large measure to the institution of manualized treatment as the standard for achieving purity, consistency, and replicability in delivering treatment models (Binder, Strupp, Bongar, Lee, Messer, & Peake, 1993; Dobson & Shaw, 1993; Luborsky & Barber, 1993; Luborsky & DeRubeis, 1984). Adherence procedures are natural companions to treatment manuals in that they are well-suited for verifying the practice of prescribed therapist techniques. Whether treatment fidelity or manual verification is the goal, treatment adherence research offers a fundamental yardstick of therapeutic accountability (Yeaton & Sechrest, 1981). These self-imposed "watchdog" methods are fast becoming required elements of counseling research (Kazdin, 1994). In addition, they represent a standard for monitoring clinical practice that is completely compatible with the quality-of-care perspective emphasized by managed care health organizations (Clarke, 1995; Herron, Eisenstadt, Javier, Primavera, & Schultz, 1994; Newman & Howard, 1986).

With due respect to this established niche, this article focuses on new possibilities emerging on the horizons of treatment adherence research. First, we review common methods of conducting adherence research and demonstrate that advanced-level procedures, which yield clinically rich information about therapist behavior in session, are congruent with the methods and goals that characterize traditional psychotherapy process research. Second, we provide both a theoretical framework and some practical recommendations for conducting advanced-level adherence research with family therapy models. Although there has been a recent surge in outcome research involving family therapies (Pinsof & Wynne, 1995*a*), there has been comparatively little utilization of adherence procedures in family therapy research and (to our knowledge) no published works that focus on adherence methodology for family-based models.

Methods of Measuring Treatment Adherence

There is presently no widely accepted technique for conducting treatment adherence research. On the contrary, there is great heterogeneity in the methods investigators use to verify

treatment adherence, and every approach has distinctive advantages and drawbacks (see Waltz, Addis, Koerner, & Jacobson, 1993, for a comprehensive review). Nevertheless, a sufficient number of studies reporting adherence findings has accumulated to identify three general categories of common adherence methods. The first category of adherence methods consists of "quality control" procedures exercised prior to and concurrently with ongoing treatment provision. Examples of quality control procedures include extensive training in the model (e.g., Shefler, Dasberg, & Ben-Shakhar, 1995), weekly supervision with an expert in the model (Simons, Gordon, Monroe, & Thase, 1995), and requirements for completing detailed progress notes (Kazdin, Bass, Siegel, & Thomas, 1989). A more advanced example of quality control is provision of a training with a treatment manual and regular "therapist drift" booster sessions in manual protocol (Henggeler, Melton, & Smith, 1992). Quality control procedures, although sometimes reported as "integrity checks," are better characterized as key ingredients for conducting psychotherapy in an efficient and effective manner. They are akin to adherence insurance, in that they proactively strengthen the likelihood that therapists will adhere to treatment models.

The second category of common adherence methods contains procedures that involve cataloguing therapist-in-session behavior in an effort to verify adherence along specified dimensions. Often, persons other than the therapist are trained to read case notes and cull data related to identified dimensions of model-congruent and model-discordant therapist behavior. Specific examples include reviewing client contact logs to rate therapeutic engagement efforts according to a preestablished continuum of intensity (Szapocznik, Perez-Vidal, Brickman, Foote, Santisteban, Hervis, & Kurtines, 1988), and summarizing domains of systemic activity for a model that prescribed multidomain intervention (Borduin, Mann, Cone, Henggeler, Fucci, Blaske, & Williams, 1995). An interesting extension of these procedures are therapist self-reports of adherence-related activities (Carroll, Nich, & Rounsaville, in press; Carroll & Nuro, in press). Keeping in mind demonstrated biases in therapist recall of session events (Chevron & Rounsaville, 1993; Lambert & Hill, 1994), adherence self-reports are standardized forms comprised of rating scales for significant prescribed and proscribed behaviors. The scales are completed after every session, and therapists are trained and monitored specifically in post-hoc assessment of the purity of their interventions. In all, cataloguing procedures provide an after-the-fact review of certain aspects of treatment, and they potentially offer a unique (and cost-efficient) perspective on session events (Carroll, Nich, & Rounsaville, in press).

The third category of adherence methods has the virtue of involving observational review of therapist conduct during treatment sessions. These procedures capture the best intentions of treatment adherence research: non-participant confirmation that therapists have practiced interventions according to the letter and spirit of the model. That said, a wide variety of approaches has been used to observe and measure therapist behavior, and they differ from one another along several dimensions: identity of the raters, number of observations sampled, method of observation, and so forth. For example, many studies (Kendall, 1994; Paivio & Greenberg, 1995) ask clinical supervisors to review randomly selected audiotapes of their supervisees to look for "obvious violations" of the model. Family therapy studies commonly use live supervision (Montalvo, 1973) as a form of ongoing adherence monitoring. In live supervision, the supervisor observers a session as it happens and intervenes when the therapist needs help or is off track in implementing the approach. Some family therapy studies also incorporate a treatment manual or other training material into the context of regular live supervision (Liddle, Becker, & Diamond, in press).

A primary strategy within the category of observational review adherence methods entails training non-participant raters to recognize a roster of intervention techniques and then to code audio or videotapes of randomly selected sessions. Raters are typically kept blind to therapist identity, session number, and the specific goals of the study (for representative samples of this approach, see DeRubeis, Hollon, Evans, & Bemis, 1982; Henry, Strupp, Butler, & Schacht, & Binder, 1993; Hill, O'Grady, & Elkin, 1992). This strategy introduces the highest levels of rigor and reward in adherence research. Admittedly, this resource-intensive approach demands a great investment of time and energy from researchers. It is difficult to train raters to recognize sophisti-

cated clinical interventions, and because the coding process is both arduous and time-consuming, rater attrition can be high (Hill, 1991). In compensation, researchers obtain adherence information that is highly non-subjective, thorough, and detail-specific with regard to how therapists actually perform interventions in session.

As evidenced by the diversity of methods to have appeared on the scene since treatment integrity became a routine concern of efficacy studies, adherence research is a progressing mini-science that takes many forms. Treatment adherence procedures were initially developed to monitor treatment fidelity, and the core task of adherence research remains providing an answer to the question: "Did the therapy occur as intended?" Even so, this deceptively straightforward question invariably opens the door to complicated judgments about model specification and "good enough" model compliance (Kazdin, 1986; Waltz et al., 1993). How much protocol violation is sufficient to disqualify a session, a therapist, or a clinical trial? How much prescribed behavior, in what combinations, is required for satisfying adherence criteria? Issues such as these remind us that more rigorous and complex adherence procedures yield more elaborate information about model implementation. In the following section, we describe how advanced-level, observational review techniques of adherence research offer a means to stretch beyond the fidelity-based question "Did the therapy occur as intended?" toward the process-based question "What exactly occurred in the sessions?" Observational review techniques thereby create the opportunity for double vision in adherence research goals: a baseline judgment regarding adequate treatment integrity (general adherence research), and a more comprehensive and clinically-rich perspective on therapeutic interventions and therapist technique (adherence *process* research) that is the hallmark of traditional psychotherapy process research.[1]

Evolving Congruence between Adherence Procedures and Process Research

The technology of adherence research is more complex than ever before. Advancements have been made in the methods used in adherence research, and with these advancements have come opportunities for answering process-based questions about clinical efficacy. Adherence process research refers to adherence procedures that utilize multivariate, observational review methods to investigate therapeutic interventions. In this section we outline three dimensions along which adherence process research is syntonic with conventional psychotherapy process studies: methods, goals, and framework.

First, in determining the *methods* for a given adherence study, investigators must make several research design decisions that irrevocably shape the nature of the data collected and the questions addressed. Fortunately, adherence process investigators who select observational-based coding systems can call upon an extensive body of previous process research that details the advantages, disadvantages, and pitfalls of each design choice. Specifically:

What will be coded? Selecting circumscribed segments of therapy sessions rather than whole sessions may preclude observation of meaningful behavioral dimensions (Mintz & Luborsky, 1971), and several alternatives exist for segmenting sessions into units of observation (Russell & Staszewski, 1988; Stinson, Milbrath, Reidbord, & Bucci, 1994).

Who shall code? Non-participant judges represent a distinct, perhaps orthogonal category of observation from that of therapists or clients who are asked to recall their own behavior (Lambert & Hill, 1994). Recent advances in process research have included asking therapists and clients to review and code tapes of their sessions (Hill, 1994).

What kind of coding system will be used? Options for selecting an adherence coding system cover the full gamut of observational-based technology: simple occurrence versus non-occurrence of an intervention, frequency counts, event-by-event prospective coding, or Likert-type quantitative ratings of intervention extensiveness (Waltz

[1] In the remainder of this article, for the sake of simplicity and focus, we concentrate on observational review techniques as the primary example of "advanced-level" adherence and process research. However, we recognize that this limited focus excludes the highly-developed body of process research that involves therapist and client recall and review of session events (e.g., Hill, 1994). Moreover, progress in therapist self-report adherence procedures may eventually produce significant contributions to treatment development, component analysis, and process-outcome linking research (Carroll, Nich, & Rounsaville, in press).

et al., 1993). There is general consensus that microanalytic systems (targeting small units over short periods with minimal inference) are more sensitive to contingent and situational influences, whereas macroanalytic systems (targeting larger units over more time with multidimensional inferences) better predict cross-situational influences and global outcomes (Julien, Markman, & Lindahl, 1989; Markman, Leber, Cordova, & St. Peters, 1995). In sum, observational-based adherence research confronts the same methodological challenges faced by traditional process research in devising process coding schemes (Alexander, Newell, Robbins, & Turner, 1995; Floyd, 1989; Hill, 1991).

Second, adherence process research shares *goals* that are identical to those championed by psychotherapy process researchers. Foremost among these goals, and the *raison d'etre* of process research from its earliest conceptions, is the analysis of what actually takes place in therapy sessions (Hill & Corbett, 1993; Shoham-Salomon, 1990). A handful of recent adherence studies have admirably responded to the challenge of describing therapist in-session behaviors in a detailed, multivariate manner. For example, Hill, O'Grady, and Elkin (1992) analyzed adherence ratings from the NIMH Treatment of Depression Collaborative Research Program (TDCRP; Elkin, Parloff, Hadley, & Autry, 1985) in order to discern therapist techniques that were unique to, and shared among, cognitive-behavioral, interpersonal, and clinical management approaches. Furthermore, they presented the manner in which various interventions tended to cluster together across modalities, therapists, clients, treatment sites, and treatment phases, as well as across various combinations of these variables. Adherence research generated from the Sheffield Psychotherapy Projects (Shapiro & Startup, 1992; Startup & Shapiro, 1993) compared prescriptive versus exploratory psychotherapies using a rare design feature: the same pool of therapists delivered both forms of treatment. This research explored therapist intervention patterns by stage and duration of therapy and examined both between-modality and within-modality adherence effects. The TDCRP and the Sheffield adherence studies are exemplary in their empirically-grounded exploration of in-session techniques utilized in different combinations and at different phases of treatment.

The primary goal laid out by contemporary process researchers is establishing links between treatment process and outcome (Garfield, 1990; Greenberg & Pinsof, 1986; Marmar, 1990). Here, too, adherence process research can contribute to the overall process agenda. For example, Luborsky, Woody, McLellan, O'Brien, and Auerbach (1985) found a significant positive relation between treatment "purity" (adherence to intended techniques in exclusion of other techniques across three treatment modalities) and client outcome on drug use and psychological status variables. DeRubeis and Feeley (1990) employed items from the TDCRP cognitive-behavioral adherence scale to compare the success of a cluster of "concrete" versus "abstract" cognitive interventions in predicting therapeutic alliance and amount of symptom reduction evidenced over a 12-week period of psychotherapy. This study also provides an important example of how adherence process methods yield valuable, and perhaps unique, data on therapy process. Non-participant raters completed macroanalytic coding scales consisting of Likert-type items designed "to assess the *extent or amount* of therapist behavior of interest" (DeRubeis & Feeley, p. 473; emphasis added). In so doing, the investigators were able to address questions related to the quantity, or dosage, of therapist interventions, and further to examine how various therapist interventions predicted or moderated other process and outcome variables.

This particular feature of adherence process research, the ability to assess the extent to which specific (prescribed) interventions are utilized in session, holds the greatest promise of finding a niche for adherence-focused research within the overall *framework* of the psychotherapy process research agenda. Specifically, an emerging framework of process analysis on therapist intervention strategies might be supported by three pillars: *adherence*, *competence*, and *alliance* research.[2] Each of these pillars has its own legacy and expanding roster of studies in the process field that cannot be justly described here. Briefly and simply stated, in this framework "adherence" alludes to what interventions are used and to what extent, "competence" refers to how well or in what manner they are used, and "alliance" concerns what relationship conditions exist within which they are used. In this overall process frame-

[2] This recalls and updates Schaffer's (1982) three dimensions of therapist behavior for predicting treatment outcome: type, skillfulness, and interpersonal manner.

work adherence retains its conventional meaning whenever (as is typically the case) a specific model or prescription of therapist behaviors is intended. But, even more broadly, adherence refers to both (1) the techniques or categories of interventions implemented by the therapist, which is a central component of any process study (Greenberg, 1986), and (2) the extensiveness or dosage of these interventions in session (Elkin, Pilkonis, Docherty, & Sotsky, 1988; Sechrest, 1994). Competence, in contrast, refers to the quality of the intervention. Therapist competence is a measure of the skill with which interventions are delivered, such that relevant aspects of the therapeutic context are taken into account (Waltz et al., 1993) and the interventions are maximally effective in the moment or in the session (Schaffer, 1983). Barometers of competence include therapist knowledge of client issues, the appropriateness and timing of interventions, and the degree of therapist responsiveness to client in-session behaviors (O'Malley, Foley, Rounsaville, Watkins, Sotsky, Imber, & Elkin, 1988; Shaw & Dobson, 1988; Stiles & Shapiro, 1994; Yeaton & Sechrest, 1981). Finally, therapeutic alliance is a multidimensional construct describing the goals, tasks, and relational bond that comprise the working relationship between therapist and client (Bordin, 1978, 1994; Gaston, 1990; Horvath, 1995). Aspects of therapist behavior, client behavior, and their interactional dynamics all contribute to determining the quality of the alliance (Horvath & Symonds, 1991; Pinsof, 1994), which in turn, shapes the relationship context of the therapy and thereby colors all in-session behaviors (Horvath & Luborsky, 1993).

Multifaceted, integrative frameworks for assessing psychotherapeutic process are required for tackling the notoriously difficult task of linking process to outcome (Greenberg, 1986; Stiles & Shapiro, 1994). We have argued that treatment adherence process research can make a valuable contribution to both pure process and process-outcome research. Next, we describe our efforts to apply adherence process procedures in family therapy research.

Treatment Adherence Process Research in Family Therapy: Process

Despite some of family therapy's most notable early advancements having occurred in the research arena (Pinsof & Wynne, 1995*b*), family therapy research is, in many ways, a relative newcomer to the clinical efficacy game (Lebow & Gurman, 1995). With its roots planted in the paradigms of systemic and interactional theories about psychotherapy that flowered less than thirty years ago (Bateson, 1972; Watzlawick & Weakland, 1977), family therapy has only recently plunged full-blown into the research culture of empirical specification and validation (Coyne & Liddle, 1992), meta-analytic status review (Hazelrigg, Cooper, & Borduin, 1987; Shadish, Ragsdale, Glaser, & Montgomery, 1995), process-outcome studies (Diamond & Liddle, 1996; Friedlander, Wildman, Heatherington, & Skowron, 1994), and disorder-specific clinical efficacy trials (Estrada & Pinsof, 1995; Liddle & Dakof, 1995; Prince & Jacobson, 1995). Moreover, the transition to empirically-focused agendas continues to meet resistance in some quarters (Liddle, 1991; Shields, Wynne, McDaniel, & Gawinski, 1994). For these reasons, family therapy research on adherence is less advanced than in the individually oriented therapies, and work to specify guidelines and standards is needed (Mann & Borduin, 1991).

In those instances when adherence has been addressed, observational review methods have rarely been attempted. Although it has long been customary to describe a given model's theoretical underpinnings and training procedures (e.g., Alexander, Barton, Schiavo, & Parsons, 1976), non-participant review of in-session therapist behavior remains the exception (e.g., Bry, Conboy, & Bisgay, 1986; Friedman, 1989) rather than the rule (e.g., Friedman, Tomko, & Utada, 1991; Henggeler et al., 1992; Joanning, Quinn, Thomas, & Mullen, 1992; Romijn, Platt, & Schippers, 1990). To date, the most rigorous adherence research has been produced by Szapocznik, Rio, Murray, Cohen, Scopetta, Rivas-Vasquez, Hervis, Posada, and Kurtines (1989) in their comparison of structural family therapy and psychodynamic child therapy. They employed trained raters to view videotapes randomly selected from three phases of treatment and, at 10-minute intervals, complete a frequency count of family-identified and psychodynamic-identified interventions. Their goal was to establish adherence thresholds for each modality—in their case, at least 75% of observed interventions being those prescribed for that model. The Szapocznik et al. study is one of the first to demonstrate that, like other paradigms, family therapy research can achieve the highest standards of treatment adher-

ence documentation and, further, successfully engage in adherence process research.

In our own work with a multisystemic, family-based intervention model, Multidimensional Family Therapy (MDFT; Liddle, 1995; Liddle, Dakof, & Diamond, 1991; Liddle & Diamond, 1991; Schmidt, Liddle, & Dakof, 1996), we are in the final stages of a five-year comparative efficacy trial for treating adolescent substance abuse. Faced with the challenge of demonstrating both treatment integrity and treatment differentiation (Moncher & Prinz, 1991) from an individual-based cognitive-behavioral model, we developed an adherence process rating scale (Hogue, Rowe, Liddle, & Turner, 1994*a*) designed to identify core clinical interventions within each modality. Based on our experience with this adherence scale we present guidelines for conducting adherence process research in general and for evaluating family therapy modalities in particular.

First, as with any psychotherapy coding venture, it is imperative that researchers present an explicit rationale for their unitizing and procedural choices (Alexander et al., 1995; Ruseell & Staszewski, 1988). In this case, we were guided at every juncture by the wish to conduct observational-based, quantitative, minimally biased adherence research that would serve the dual purpose of establishing integrity thresholds *and* providing process-level data on therapist interventions. In order to hit these marks, (1) we recruited "naive" undergraduate psychology majors to serve as judges who were kept blind to the nature of the treatment models and the goals of the study, intensively trained over a five-month period to reach adequate reliability, and reconvened on a weekly basis for supportive training and to prevent rater drift; (2) we selected a 7-point Likert-type coding system for rating the extensiveness of therapeutic interventions; (3) the scale was constructed with some items intended to be unique to each modality, some common to both, and some applicable to almost any form of psychotherapy; and (4) judges viewed videotapes of whole therapy sessions.

Second, we closely modeled our scoring manual (Hogue, Rowe, Liddle, & Turner, 1994*b*) after the TDCRP *Rater's Manual for the Collaborative Study Psychotherapy Rating Scale-Form 6* (Evans, Piasecki, Kriss, & Hollon, 1984; see also Hollon, Evans, Auerbach, DeRubeis, Elkin, Lowerry, Kriss, Grove, Tuason, & Piasecki, 1988). The general format of our scoring manual, and many of the recommendations presented below, were based on the ground-breaking TDCRP treatment adherence project.

Our adherence scale contains four theory-driven categories of therapeutic interventions: (1) Items unique to MDFT (e.g., *Arranges, coaches, and processes multiparticipant interactions*; *Shapes parenting practices of functional parents*); (2) Items unique to the individual therapy model (e.g., *Explores tacit beliefs that underlie and organize client behaviors*; *Utilizes protocol-driven behavioral techniques or relaxation exercises*); (3) Items common to both models (e.g., *Encourages client to experience and express affect in session*; *Helps client develop a future-based orientation*); (4) "Non-specific" items prescribed by virtually every therapeutic model (e.g., *Probes for client's unique point of view*; *Responds to client in warm and compassionate manner*).[3] One primary goal of our adherence study is demonstrating that therapists utilize appropriate levels of model-unique interventions. However, in keeping with the spirit of adherence process research, we are equally interested in the common and non-specific items. Our agenda is two-fold: Above and beyond a model's tendency to promote signature interventions, what nuances in delivering the model give rise to alternative (perhaps unexpected) strategies? And which patterns or clusters of interventions collectively emerge as most prominent with the given population? Questions like these are concerned with the specific ingredients of therapy process that reveal subtleties of how a theory and therapy model are actualized in practice (Elkin et al., 1988; Stiles & Shapiro, 1995). Further, as testimony to the fast pace of development of this specialty area in family therapy, process-based questions of this

[3] In the process of developing this scale we discovered an unforeseen and, in our case, unresolvable confound: Every "family therapy" item involves more than one member of the client system. That is, all items uniquely prescribed in the MDFT condition require judges to rate therapist behavior that by definition occurs either in conjoint sessions or in preparation for conjoint sessions. Of course, it is certainly not true that conjoint sessions are a prerequisite for family therapy interventions. Many methods are available for conducting family therapy through one-person sessions (see Szapocznik, Kurtines, Perez-Vidal, Hervis, & Foote, 1990). Moreover, some individually-focused interventions (e.g., exploring family-of-origin issues) are more common in family-based models than in certain individual therapies.

nature are receiving great attention in contemporary family therapy research (Friedlander, Wildman, Heatherington, & Skowron, 1994; Henggeler, Borduin, & Mann, 1993; Pinsof, 1989; Shadish, Montgomery, Wilson, Wilson, Bright, & Okwumabua, 1993).

We now offer eight guidelines for conducting a treatment adherence process research project. These have served as procedural blueprints for designing the study, practical instructions for training raters, and scoring reminders to companion the rating of videotapes. Note that these guidelines apply primarily to constructing adherence items; substantially different procedures are typically utilized for constructing items intended to measure various forms of rater bias (see Hill, O'Grady, & Price, 1988). The first five guidelines are general, while the last three pertain specifically to family therapy adherence work:

Rate therapist behavior only. Treatment adherence scoring is geared exclusively toward therapist behavior, not the behavior of clients. Therefore, judges should code only the statements and actions of the therapist, and only these count as justification for any particular score. This guideline increases accuracy and reliability. Equally important, it inhibits consideration of therapist responsiveness to client behavior, which falls under the domain of therapeutic competence.

Score "is," not ought." Judges should score only what the therapist actually does in session, not what might have been done or should have been done. That is, there is no "negative scoring" for missed opportunity, incompleteness, or diluted effort. A logical extension of the previous guideline, this caveat discourages judges from inferring therapist intention, assessing therapeutic context, or weighing therapist responsiveness (again, competence rather than adherence concerns).

Extensiveness = Thoroughness + Frequency. Interval-level ratings of adherence are anchored on a scale that measures the extensiveness to which a given intervention is utilized in session. Extensiveness constitutes two separate dimensions of therapist behavior: (1) *thoroughness*, defined as the persistence and intensity with which a single intervention is executed, and (2) *frequency*, defined as the number of instances in which a given intervention occurs. High ratings may be given for a powerfully focused intervention that takes place during a brief segment, for an intervention that arises consistently throughout the session but is not pursued at length in any episode, or both. Unfortunately, it is not possible to provide a precise algorithm for blending judgments of thoroughness and frequency. Judges must rely on item descriptions in the coding manual, training, familiarity with the adherence scale, and experience in coding tapes in order to determine how much weight to assign each dimension in scoring extensiveness. For example, in our study *Encourages client to experience and express affect in session* tends to be a thoroughness-weighted item, in that therapists from both modalities occasionally promote an extended interaction around an emotional theme but do not persistently tie interactions to emotional themes throughout a given session. On the other hand, *Probes for client's unique point of view* is usually scored according to the frequency with which a therapist specifically "checks in" for a client's reaction or opinion.

Emphasize item exemplars and item distinctions. Each item described in the manual should be accompanied by "exemplar" therapist statements. Exemplars are brief therapist speech acts that help judges recognize interventions by cuing them to emblematic content and style for a given item. Exemplars are not intended to capture item extensiveness (which is too context-specific and cumbersome to describe in a useful manner); instead, they are prototypes of the spectrum of behaviors represented by each item. In addition, manuals should devote considerable space to item distinctions. Item distinctions are narrative descriptions that relate how a given item can be distinguished from other items that contain similar content or tend to occur in conjunction with the target item. Distinctions should also include contrasting exemplars to act as concrete references for item differentiation.

Buffer raters against halo effects. Halo effects refer to situations wherein a rating for a given item is biased by a rating awarded to another item or by a global judgment of the session as a whole. Halo effects come in many shapes and sizes, depending on the goals and design of the study. We caution our judges about these in particular: giving high ratings on every item because it is decided that a therapist is generally competent; allowing one impressive intervention to generate "positive spillover" into ratings of similar items; intentionally deciding that, or unintentionally scoring as if, two items naturally covary; and forming a negative impression partway through a session and thereby giving insufficient weight to

later behavior. In sum, at every sitting judges must remember that each item is to be rated as a separate, independent entity, and its rating should not be influenced by ratings given to any other item (unless specified otherwise in the manual). Of course, reliable item independence is possible only if the scale and the manual are planfully constructed with this in mind.

Score vicarious interventions. Vicarious intervention refers to the process by which a therapist intervenes with one participant through another, or intervenes with multiple participants by orchestrating their interaction. For sessions with multiple participants, items should be scored not only with regard to what therapists do with each person, but also with regard to what therapists encourage participants to do with one another. For example, in a session with a mother and son, a therapist might instruct the pair to have an extended conversation about past disappointments, or coach the mother in helping the son plan more effective solutions to a recurring problem. In these cases, the therapist can receive high marks for encouraging affect or teaching problem-solving skills, even though the clients are chiefly carrying out the intervention. In short, judges should account for the manner in which therapists encourage, facilitate, and comment upon the interactions of others in conjoint sessions.

Incorporate "to whom" into appropriate items. For certain items, the target of the intervention determines the classification of the intervention. For example, our scale contains two similar items: *Shapes parenting practices of functional parents* and *Teaches client new coping skills*. When therapists address the problem-solving, coping, or communication skills of adults specifically in the role of parenting their children, the former is scored. However, when a therapist is working with a parent to improve these skills in other domains (e.g., communicating with a spouse), the latter is scored, even if the specific skill addressed (e.g., active listening) is identical. Many popular family therapy interventions (e.g., restructuring intergenerational coalitions, strengthening parental alliance) are conditionally identified with the target(s) of the behavior.

Keep up the appearance of item generalizability. In designing adherence scales to differentiate family-based treatments from other modalities, it is important that the content of items does not immediately betray their "allegiance" to a specific model; otherwise, the internal and construct validity of the study may be compromised. This is a formidable challenge. When comparing family versus group treatments, items can refer to "multiple participants" rather than "family" or "group." In our project's comparison of family-based and individual-based treatments, we take two precautions: (1) judges are not informed that two different models are being assessed, and (2) judges are instructed that family involvement varies according to the contingencies of each case. In our family-based treatment (MDFT), therapists spend a great deal of time working with individuals alone, and individual sessions routinely focus on intrapersonal experiences of the client. Similarly, our individual-based model promotes interventions that focus on concerns related to significant others (e.g., helping the adolescent process negative experiences with a parent at home). Nevertheless, given the experience that judges accumulate in identifying interventions and recognizing therapists over the course of an adherence study, some rater insights (hence biases) are unavoidable.

Treatment Adherence Process Research in Family Therapy: Outcome

Contemporary process researchers agree that identifying the types of interventions used in successful psychotherapies, particularly interventions empirically linked with favorable treatment outcome, will be a principal concern of future process studies (Greenberg, 1995; Hill & Corbett, 1993). We predict that adherence process research will become a staple analytic tool for these studies. Nevertheless, adherence process research methods are ill-suited for answering some fundamental process-related questions. For example, at its core adherence research is a hypothesis-testing approach to studying psychotherapy. Its main goals are confirming the clinical model and cataloguing prescribed behaviors in session. As described in detail elsewhere (Hill, 1990; Mahrer, 1988; Shoham-Salomon, 1990), discovery-oriented research, with its emphasis on exploring psychotherapy process from a hypothesis-generating stance, takes quite the opposite tack. Discovery-oriented research attempts to track unpredictable or unexpected developments in session, draw from a variety of clinical theories to understand enigmatic phenomena, and formulate new hypotheses when available evidence is weak or contradictory. These goals are better served by task analysis and change events methods (Green-

berg, 1991; Safran, Greenberg, & Rice, 1988) than by adherence methods.

Adherence process research also has limited potential for evaluating facets of the therapeutic context. Context-sensitive process research is designed to investigate the often-subtle manner in which the meaning of behavior varies according to the context in which that behavior occurs (Greenberg, 1986; Heatherington, 1989; Messer, Tishby, & Spillman, 1992). Client behavior, and therapist-client interpersonal processes, are key components of the therapeutic context. On the one hand, adherence process research incorporates a given model's routine expectations for context-sensitive interventions into the development of a coding instrument and training of judges. On the other hand, adherence research concentrates on therapist behavior and, to a large degree, factors out differential client behavior as "nuisance variance." As a result, adherence process methods are insensitive to many variables of great interest to process researchers: client pre-treatment characteristics, the nature of the presenting complaint, therapist awareness of client needs, therapist-client relationship characteristics, and subtleties of culturally-bound or idiosyncratic communication, to name a few.

Finally, treatment adherence process research clearly belongs to the tradition of psychotherapy process research concerned with therapeutic technique and comparative intervention strategies (Lambert & Bergin, 1994). This tradition has recently come under fire by some (e.g., Stiles & Shapiro, 1989, 1994) who take issue with implicit subscription to the "drug metaphor" in process research, a metaphor that highlights "strength of active ingredients" and "dosage of intervention." According to these critics, the drug metaphor has two significant drawbacks: (1) It misrepresents therapy as an enterprise in supplying titrated dosages of a prepared intervention, rather than one of theory-based responsivity to client in-session needs; and (2) It generates process research methods with little power to detect process-outcome links, given their focus on intervention dosage rather than therapeutic responsivity. These criticisms support our contention that adherence process research is but one pillar in the process research framework. To bear the full weight of comprehensive clinical efficacy and process-outcome research, support from therapist competency and therapeutic alliance research is required.

Concluding Comments

Growing interest in treatment specification and manualization, comparative clinical efficacy, and therapeutic accountability has generated increased attention to the tasks of ensuring and documenting that therapists implement treatment models as intended. Although the technology for investigating treatment adherence is still in the developmental stage, particularly in the field of family therapy, it is clear that more complex methods yield more comprehensive, clinically rich information. When sophisticated procedures are used, adherence research becomes a powerful process research tool for examining therapeutic interventions across sessions, phases, therapists, and modalities. For these reasons, adherence research is poised to make significant contributions to the ongoing project of identifying essential ingredients and illuminating process-outcome links in clinically-effective psychotherapies. As the science of adherence research matures, advancing from issues of "What this model *is*" to "What this model *does*," treatment adherence process research should become a valuable feature of psychotherapy process research.

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