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Promoting Efficacy Research on Functional Analytic Psychotherapy

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Abstract

Functional Analytic Psychotherapy (FAP) is a form of therapy grounded in behavioral principles that utilizes therapist reactions to shape target behavior. Despite a growing literature base, there is a paucity of research to establish the efficacy of FAP. As a general approach to psychotherapy, and how the therapeutic relationship produces change, FAP does not specify a disorder construct as a dependent variable. In addition, because of its functional, idiographic nature FAP is also challenging to specify as an independent variable. The present paper suggests interpersonal relating as a domain of focus for a line of FAP research and describes four levels of FAP application to contribute to specifying FAP as an independent variable for use in research. Illustrative data from an ongoing study comparing FAP to supportive listening for interpersonal difficulties demonstrates an application of these suggestions for promoting FAP efficacy research.

Keywords

Functional Analytic Psychotherapy, efficacy research, interpersonal therapy, therapeutic alliance

Based on their clinical experience in which dramatic client improvements were correlated with particularly intense therapeutic relationships, Kohlenberg and Tsai (1991) provided a behavioral interpretation of how the client-therapist relationship may produce change and attempted to explicate the strategies by which therapists may employ such relationships. The product was a comprehensive form of interpersonally-oriented psychotherapy named Functional Analytic Psychotherapy (FAP; Kohlenberg, & Tsai, 1991). FAP's theoretical grounding in scientifically established behavioral principles, proposed mechanism of action, and key therapeutic strategies have been well-articulated in book-length descriptions (Hayes, Masuda, Bissett, Luoma, & Guerrero, 2004; Kanter, Tsai, & Kohlenberg, 2010; Kohlenberg & Tsai, 1991; Tsai et al., 2008). Despite this strong foundation, FAP has yet to generate a compelling body of empirical literature supporting its clinical efficacy. To be sure, a number of case studies, single-case replication series, and group design studies adding FAP to other approaches are promising, but the data remain at a preliminary stage (Baruch et al., 2008; Garcia, 2008; Weeks, Kanter, Bonow, Landes, & Busch, 2011). The purpose of the present paper is to help promote FAP research, particularly efficacy research, an area that has been said to particularly stand out in terms of the need for further development (Garcia, 2008).

FAP IN NUTSHELL

FAP is summarized nicely by its name. The approach is *functional* in that there is an emphasis on how client behavior operates on the world (including the world within the therapy milieu), not what the behavior looks like (i.e., its topography). It is *analytic* in that therapy involves identifying how important classes of client behavior operate on the world, including the part of the world within the therapy session. This is done typically by appeal to principles of operant conditioning. FAP is *psychotherapy* in that the therapist is charged with responding differentially to particular classes of client behavior as they occur in the therapy session so as to increase or decrease them (in session and in the world outside the session) and thereby improve the client's psychosocial functioning.

The primary agent of change in FAP is the responding of the therapist to in-session occurrences of clinically relevant behaviors (CRBs) emitted by the client. FAP identifies three types of CRB: CRB1s, which are collaboratively identified problem behaviors that occur in session, CRB2s, which are improvements in behavior that occur in sessions, and CRB3s, which are attempts by the client to describe causes of his or her behavior. The therapist's job is to respond to instances of CRB in a manner that reduces CRB1s and prompts, shapes, and increases CRB2s. Thus, the mechanism of action in FAP is therapist provided consequences contingent on CRB. The therapist is guided in the task of responding to CRB, and thereby implementing the mechanism of action, by 5 rules, which are more flexible guidelines than rigid prescriptions. The rules are: 1) Watch for CRB, 2) Evoke CRB, 3) Reinforce CRB, 4) Observe the Potentially Reinforcing Effects of Therapist Behavior in Relation to Client CRB, and 5) Provide Functional Analytically Informed Interpretations and Implement Generalization Strategies (Kohlenberg & Tsai, 1991; Tsai et al., 2008).

FAP represents a relatively straightforward application of behavior analysis to the interactions occurring in psychotherapy. Why then has there been difficulty generating research support for FAP, especially when other behavior therapies have made more substantial progress (e.g., Acceptance and Commitment Therapy, Dialectical Behavior Therapy, Behavioral Activation, see Hayes et al., 2004)? One aspect of FAP that appears relevant is that it is a general approach to psychotherapy and how the

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therapeutic relationship can produce change. It is not based on a model of psychopathology or a specific disorder. This makes FAP broadly applicable (for use in short-term or long-term therapy, as a stand-alone intervention or in conjunction with empirically-supported approaches), but can be a complication for research. Treatment research often targets a particular disorder evaluating a manual written to guide application of the treatment for that problem. This greater specification of the independent and relevant dependent variables is an important component of the initial treatment development phase (Rounsaville, Carroll, & Onken, 2001). FAP, as a general model of the psychotherapeutic relationship, does not specify (or rule-out) any disorder measure as a dependent variable, which may be one reason why when FAP has been used in group-design studies it has often been superimposed on other manualized treatments for targeted disorders (e.g., Kohlenberg , Kanter, Bolling, Parker, & Tsai, 2002). Also, because of its broad applicability and functional, idiographic nature, FAP is a challenging to specify as an independent variable. Each of these topics will be addressed in turn.

IDENTIFYING DEPENDENT VARIABLES FOR FAP EFFICACY RESEARCH

The conceptually specified dependent variable in FAP is individually identified classes of CRB. As such, many of the developments in, and focus of, FAP research has been related to conducting process-oriented, single-case studies emphasizing identification and coding of CRB (see Busch, Callaghan, Kanter, Baruch, & Weeks, 2010; Busch et al., 2009; Callaghan, Summers, & Weidman, 2003; Kanter et al., 2006). These attempts to document changes in CRB (following the introduction of FAP or particular instances of in vivo therapist responding) are important, consistent with the behavioral tradition, and should continue as they ultimately may provide the most convincing data with respect to mechanism of action in FAP. Indeed, if there were psychometrically sound strategies or established methods for conducting experimental functional analyses to measure and determine classes of CRB and document therapist provision of social consequences, FAP research could progress much like other research in applied behavior analysis. Unfortunately, there are significant concerns about the lack of standardized and reliable assessment approaches for identifying classes of CRB, which presents formidable challenges for FAP research (Follette & Bonow, 2009; Weeks et al., 2011). These are longstanding problems in clinical behavior analysis (Hayes & Follette, 1992) and while some progress has been made (see Callaghan, 2001; Callaghan & Follette, 2008), reliable methods for conducting functional analyses and measuring target response classes are not currently available (Follette & Bonow, 2009). Thus, in addition to continued development related to reliably measuring and demonstrating changes in CRB, it may be fruitful to expand the range of targeted dependent variables.

One method for expansion would be to more systematically incorporate aspects of standard treatment development models in empirical clinical psychology (Rounsaville et al., 2001). Again, this should not be done instead of rigorous single-case, time-series methods, but in addition. Vilardaga et al. (2009) describe an integrated model of treatment development with varied "fronts of exploration" including: time series methods, targeted small-scale/analog studies, randomized clinical trials, component studies, and mechanism and moderation analyses. The idea is that these approaches can be mutually informative and that findings should coalesce. This is not a completely foreign idea to FAP, but has typically been employed when FAP is combined with another intervention for a targeted problem. A good example is when FAP was combined with acceptance and commitment therapy (ACT) in a randomized clinical trial for smoking cessation (Gifford et al., 2011; see also Kohlenberg et al., 2002 and Gaynor & Lawrence, 2002 for examples with quasi-experimental designs). Participants in Gifford and colleagues (2011) were randomly assigned to bupropion or bupropion+FAP+ACT. The combined treatment produced superior rates of smoking cessation at 1-year follow-up and the effect was mediated by the post-treatment therapeutic alliance (measured with the self-report Working Alliance Inventory) and a self-reported measure of acceptance. The superior alliance data in the FAP condition and the fact that the alliance mediated outcome are consistent with predictions based on FAPs mechanism of action. These are indirect data to be sure, measured via self-reports of FAP effects on relevant constructs, but they offer value added in allowing predictions derived from FAP to be more readily empirically evaluated.

As noted above, FAP does not rule-out *a priori* any clinical dependent measure so the research domain is wide open. However, to develop a progressive, cumulative body of work often requires specifying an area of focus. In the space below the case will be made for targeting interpersonal relating as a domain of focus for a line of FAP research. Interpersonal relating makes sense for a number of reasons. First, problems with interpersonal relating can be closely linked to most, if not all, forms of psychopathology (Horowitz, 2004). Second, based on the notion that the therapeutic relationship shares functional similarities with other relationships (which should lead to the occurrence of CRB), relevant problems with interpersonal relating should appear in interaction with the therapist. Third, the emergence of CRB would allow for application of FAPs purported mechanism of action -- the responding of the therapist to in-session occurrences of clinically relevant behaviors emitted by the client. Fourth, there are a range of relevant assessment devices for measuring the therapeutic relationship and interpersonal functioning, providing readily useable indices of change (although note, most of these are self-report measures and as such are also far from perfect). Because FAP is an inherently social/interpersonal therapy (i.e., the consequences for CRB are delivered by another person, the therapist), a key relationship to measure would be that between the client and therapist. Implementing FAP should produce improvements in the therapy relationship. Moreover, FAP should yield gains in interpersonal functioning outside the session and it logically follows that the stronger alliance (driven by provision of FAP) should mediate the interpersonal change in daily life (that follows from consequences applied to CRB in vivo). It is important to notice in such a mediator analysis that the therapeutic alliance is serving as a proxy. The proposed mechanism in FAP (i.e., increased CRB2s and decreased CRB1s as a result of in-session prompts and reinforcement) is being captured only by implication in the differential alliance that is

predicted from FAP. Thus, if FAP works as hypothesized, the alliance should function as a statistical mediator, but the putative mechanism in FAP is not the alliance per se. More direct or explicit measures of CRB (provided they are reliable and psychometrically sound) would map more closely onto the proposed mechanism. It would then be predicted that in statistical models that allow for the testing of multiple simultaneous mediators (e.g., Preacher & Hayes, 2008), change in CRB would emerge as a mediator and the alliance may no longer function as a statistical mediator. Thus, conceptually, measures of CRB would be preferable; however, pragmatically, in the absence of readily available and evaluated measures of CRB, such indirect tests may be valuable as a way to move the efficacy research agenda forward (see Gifford et al., 2011). The notion of having multiple "fronts of exploration" is also relevant. The hope would be that data spanning the range from micro-process coding studies to those using indirect tests of statistical mediators would converge in support of the proposed mechanism. Fifth, and finally, measures of psychopathology could be readily incorporated as well to allow for (a) determination of whether changes in interpersonal behavior appeared to mediate changes in psychological functioning or (b) whether the treatment effects were moderated by particular types of clinical presentations.

Based on the rationale outlined above, a systematic line of research could follow examining the hypothesis that FAP should produce a strong therapeutic alliance which mediates change in interpersonal functioning. A first step would be to compare FAP to a watchful waiting condition. The watching waiting group (if using a randomized clinical trial design) or phase (if using a time series design) would involve repeated, regular assessment to determine the progression of interpersonal functioning and therapeutic relationship, providing a minimal comparison group (in a randomized clinical trial format) or phase (if using a time series design) for FAP. The prediction would be that FAP would be superior on interpersonal outcomes and the therapeutic alliance. Moreover, the therapy relationship should not only favor FAP, but should statistically mediate changes in interpersonal functioning. If these data are positive (which could include independent replication), the next step would be to incorporate supportive listening as a comparison. The supportive listening comparison would share with FAP an emphasis on establishing a therapeutic relationship marked by genuine positive regard and empathic attunement, but would differ on the critical variable of offering in vivo responding to CRB. Again, not only would FAP be predicted to outperform supportive listening on alliance measures and measures of interpersonal functioning, but the alliance should mediate the changes in interpersonal functioning.

As data emerge suggesting FAP is incrementally efficacious relative to watchful waiting and supportive listening, more theoretically intriguing comparison conditions would warrant consideration. Two approaches that offer interesting comparisons for FAP would be emotion-focused therapy (EFT; Greenberg, 2002) and interpersonal psychotherapy (IPT; Stuart & Robertson, 2003). EFT with its focus on experiential processing of emotional experience is characterized by affectively intense therapeutic experiences for clients similar to FAP. Also similar to FAP, the foundation for receiving emotion coaching is a strong therapeutic relationship marked by empathic listening and positive regard (Greenberg, 2004). However, unlike FAP, the function of establishing a therapeutic alliance in EFT is that it "creates the optimal environment for focused attention to turn within, and eliminates the client's need to attend to interpersonal processes occurring between them [sic] and the therapist" (Pos & Greenberg, 2007, pp. 27). This is precisely the opposite approach taken in FAP, where the therapeutic alliance helps create a context for turning attention toward in vivo interactions, which should further strengthen the therapy relationship (Tsai et al., 2008).

With respect to IPT, FAP shares with this approach the notion that much psychological distress and dysfunction is linked to difficulties forming and maintaining meaningful social relationships, such that therapy may address distress/dysfunction by targeting social relating. Again, however, FAP is conceptually unique from IPT in the explicit importance it places on using the in-session interactions between the therapist and the client as the basis for shaping a more adaptive social repertoire. "IPT has historically been characterized by the relative absence of interventions which directly address the therapeutic relationship" (Stuart, 2008; pp. 6). The concern expressed in IPT is that addressing the therapeutic relationship "changes the focus of treatment from more immediate work on the patient's current interpersonal problems and social relationships to an intense experience with, and analysis of, the relationship with the therapist" (Stuart, 2008; pp. 6). The opposite tact is taken in FAP. The FAP therapist identifies problematic social behaviors that appear in the therapy milieu and actively attempts to preempt problem responses and to prompt and reinforce more adaptive alternatives. The in-session, here-and-now interpersonal focus is thought to energize the therapy and to allow for the provision of immediate feedback on interpersonal functioning. Because of the immediacy of the feedback and its occurrence in a caring genuine therapy relationship, it is predicted that such contingent responding will maximize behavior change. Garcia (2008, pp. 245) concluded that: "Efficacy studies based on reliable group methods will be needed to compare FAP with other therapies known to be effective, with no therapy, and with placebo therapy." The preceding analysis is in complete agreement and outlines a systematic cumulative research agenda for pursing these efficacy studies.

Empirical comparisons attempting to establish the efficacy of FAP require specification of FAP as an independent variable. Existing FAP writings (e.g., Kohlenberg & Tsai, 1991; Tsai et al., 2008) illustrate well the unique aspects of FAP and the recommended strategies for engaging its theoretically proposed mechanism. However, explicit guidance on how to move from a general treatment approach to a research protocol is not offered. A primary consideration involves specifying the necessary and sufficient ingredients of FAP that might be the focus of a particular research-based application. These ingredients will initially need to be postulated based on logic and theory, but should become increasingly empirically-based as they are exposed to the selective effects of data. In the following section, several levels of FAP application are described that might serve as ways of attempting to specify FAP as an independent variable for research.

IDENTIFYING THE INDEPENDENT VARIABLE FOR FAP RESEARCH: LEVELS OF FAP APPLICATION

Kohlenberg (2005) outlined 3 levels of integration in FAP. These levels served as a foundation for the analysis that follows; however, they were modified, expanded, and translated into levels of FAP application. The levels are necessarily hierarchical in that an earlier level is entailed in later levels and thus maintain the spirit of integration outlined by Kohlenberg. It is hoped that the description of levels of application may have some benefits for specifying the use of FAP in efficacy research and for determining the active ingredients in FAP.

Level 1 FAP. In the Preface to the 1991 book, Kohlenberg and Tsai (pg. viii) write: "Although we provide five principles, only the first one is really needed, and we hope it will be the one you will remember: it is 'watch for clinically relevant behaviors'…" This statement identifies Level 1 application of FAP, logically and clinically. Logically, it would be next to impossible to implement the additional therapist rules without Rule 1. Clinically, the idea is that the therapeutic relationship shares functional similarities with other relationships, which should lead to the occurrence of CRB. A therapist who is watching for these in-session instances of problematic or improved behavior has a substantially increased likelihood of naturally responding with effective consequences. In other words following Rule 1 may lead the therapist to relatively automatically engage Rule 3. There are intriguing empirical questions in here and bold hypotheses are on offer: "Our major hypothesis is that following this rule improves therapeutic outcome… It is also hypothesized that following Rule 1 will lead to increased intensity; that is, stronger emotional reactions of the therapist and client to each other during the session" (Kohlenberg & Tsai, 1991; pg 24; see also Kohlenberg & Tsai, 1994). These hypotheses are readily testable. A specifiable independent variable is provided that could be manipulated within or across therapists. Dependent measures of various therapeutic outcomes and client and therapist reactions to sessions are available to capture proposed differences. Finally, the attention on process research characteristic of FAP need not be sacrificed. If predicted differences were found, this would justify further micro-process analyses. Indeed, as watching is a private behavior it, by itself, should not produce differential results and therefore could not account for differences in outcome or alliance. Instead, differential therapist behavior produced by awareness of CRB would be the suspected mechanism of action and could be examined via *post hoc* coding. Such data would further support the hypothesis that awareness of CRB is not only necessary but may also be sufficient.

Level 2 FAP. The second level of integration outlined in Kohlenberg (2005) involves applying Rules 1-4. The current presentation will divide Kohlenberg's second level into two levels: Level 2 and 3. Level 2 is based on the presentation of FAP by Whiteside, Kohlenberg, & Tsai (2005). Whiteside et al. (2005) were writing under tight page constraints for presentation of FAP in the *Encyclopedia of Behavior Modification and Cognitive Behavior Therapy.* In this abbreviated presentation of FAP, only CRB1s and 2s and Rules 1-3 were discussed, omitting CRB3s and Rules 4-5. This is what will be considered Level 2 application of FAP. It extends the prior level in that therapists attempt to explicitly prompt CRB, particularly CRB2s, and to deliberately reinforce such responding when it occurs. Indeed, existing research on FAP typically emphasizes, and often focuses only on CRB 1s & 2s (see Busch et al., 2010; Busch et al., 2009; Kanter et al., 2006; but see Callaghan et al., 2003). Similarly, recent descriptions of the Functional Analytic Psychotherapy Rating Scale (FAPRS; Callaghan & Follette, 2008) coding system do not have a client code for CRB3s and the therapist codes are for evoking and responding to CRB (Rules 2 & 3), but do explicitly code for asking about reinforcing effectiveness of the therapist or functional interpretations (Busch et al., 2010; Callaghan & Follette, 2008). This is not a criticism of the existing studies or coding systems, but simply recognition that they represent a prioritizing of aspects of the FAP approach and thereby suggest a potential foundational component for research consisting of 2 CRBs and 3 therapist rules. Given the focus on CRB 1s and 2s and Rules 1-3 in prior research and the FAPRS coding system, this may be the most logical level of application from which to launch efficacy studies. Again, positive efficacy data would warrant micro-process coding to precisely explore mechanism of action.

Level 3 FAP. Weeks and colleagues (2011) suggest some of the lack of empirical progress in FAP may be due to a lack of detailed guidance about how to apply FAP rules in a specific interaction. In response they offered the logical FAP interaction as a concise unit. The logical FAP interaction involves a therapeutic exchange in which the five FAP rules are engaged in sequence: recognition and/or evocation of CRB à provision of natural consequences à observation/discussion of impact of consequences à implications of the in-session exchange for daily life interactions. The entire interaction may play out in a relatively tight sequence or with additional client and therapist behavior interspersed. The temporal links between identifying, evoking, and responding to CRB would be expected to often be fairly close; however, client reactions to the interaction and the implications for daily life interactions may be probed at a later point in the session. The logical interaction approach is a natural extension of the prior levels of FAP application adding CRB3s and Rules 4-5. The addition of CRB3s and Rule 5 allow for more explicit linking of CRB to daily life behavior via descriptions of in-to-out parallels (by the client or therapist) and assignment of homework that follows from in-session improvements. Thus, Level 3 FAP more explicitly targets generalization to the client's daily life compared to Level 2 where generalization is left to occur naturalistically.

Level 4 FAP. Level 4 in the present hierarchy incorporates the Level 3 integration outlined by Kohlenberg (2005) and is consistent with comprehensive presentations of FAP describing the five therapist rules and three CRBs with functional analysis used to determine treatment targets and interventions. As FAP writings have evolved they have offer expanded descriptions and recommendations for application of FAP rules in a number of domains (Tsai et al., 2008). Full implementation of these suggestions might be considered to represent the most extensive application of FAP. For instance, Tsai and colleagues (2008) provide expanded discussion on conducting a FAP case conceptualization, forming a unique FAP therapeutic relationship, training in techniques for improving awareness and sensitivity to CRB, and

using indirect methods of responding to client improvements. In the current presentation of levels of FAP application anything beyond Level 3 is lumped into Level 4. Level 4 need not remain a hodgepodge of everything beyond Level 3. In fact, empirical examination of prior levels of application would allow for ready testing of the incremental efficacy of adding more complex and involved applications.

Indeed, there are a number of ways to envision how research might progress based on the levels of application identified. One rationale would be to begin with Level 4, based on the idea that incorporating as much of FAP as possible gives one the best chance to see an effect. Subsequent studies could then dismantle FAP according to levels of application. The downside of this approach is that Level 4 is the hardest level to specify as an independent variable for research, given that anything beyond Level 3 is currently lumped into Level 4. In addition, the history of component studies with other treatments suggests that combinations have often not produced superior results to simpler components (see Jacobson et al., 1996; Renfrey & Spates, 1994). Thus, one might argue for starting with a more parsimonious, lower level of application than Level 4. As noted earlier, most existing FAP research has emphasized CRB 1s and 2s and Rules 1-3 and in that sense is most consistent with a Level 2 application. It is also possible to envision a stepped sequence wherein failure to respond to a lower level application leads to explicit implementation of the aspects of the next higher level (e.g. an A/B/C design where A = Baseline, B = Level 1 FAP, C = Level 2 FAP). There are many reasonable inroads based on the levels of FAP application identified that can allow for both top-down and bottom-up research agendas.

LEVELS OF FAP APPLICATION AND CASE FORMULATION

Four levels of FAP application that would be expected to impact treatment process and outcome variables were described. The levels are hierarchical with each subsequent level absorbing the prior one. The amount that is left to occur naturally varies across the levels. The suggestion in emphasizing Rule 1 is that therapist behavior relevant to Rule 3 (and probably Rule 2) will be somewhat entailed by following Rule 1; that is, it will follow naturally to some extent. Likewise, following Rules 1-3 would leave generalization to occur naturally and would leave detection of therapist reinforcing efficacy to be captured in the therapist's awareness of future CRB. The logical FAP interaction includes all 5 rules, explicitly incorporating generalization strategies. The proposed benefit in identifying levels of application is to extract foundational aspects of the treatment that are expected to make a clinically significant difference to promote research evaluation of FAP and to facilitate the extent to which data contribute to treatment developments.

One potential danger of extracting sub-levels from the overall presentation and implementation of FAP is that the treatment's functional nature will be lost. FAP is functional in that it is focused on the impact of client behavior on the world (including the small part of the world within the therapy session), not what the behavior looks like. Any application of FAP requires, at a minimum, viewing behavior functionally in the aforementioned respect. In order to watch for, evoke, or provide consequences for CRB, a therapist has to have a sense of for what he/she is watching, prompting, or reinforcing. How is it determined that a particular response is a CRB? This is the domain of case conceptualization. A case conceptualization represents an attempt at understanding the functioning of a particular client, formed ideally as a collaborative venture between therapist and client. The conceptualization describes the nature of the problem(s) and the potentially relevant causes and maintaining variables with a particular emphasis on those that may be amenable to therapeutic work. Thus, the conceptualization drives the therapy process and continues to evolve based on treatment responsiveness. Kohlenberg and Tsai (2000) present a 5-column case conceptualization form for use in FAP. The columns include: relevant history, daily life problems and goals, and CRB1s and 2s.

The levels of FAP application articulated herein could be engaged following a standard formulation involving an understanding of the history of the presenting concerns, daily life problems and goals for daily life. This information provides a foundation for identifying in session instances of problematic or productive behavior. That is, as the therapist takes a life history and identifies problems and goals applicable to the client's daily life, potential in-vivo instances of relevant response classes are identified for which the therapist may now watch. For instance, a client being treated for problems with social anxiety who presents with gaze aversion and a baseball cap pulled down over his eyes might be readily identified as engaging in a CRB1. In this example, the therapist is watching for CRB based on a standard formulation where social anxiety was identified as a daily life problem. By watching for CRB, this therapist may now be more likely to naturally respond to CRB in session, for instance, by smiling or appearing especially interested when the client makes more appropriate eye contact or adjusts his cap to reveal more of his face (CRB2s). A Level 2 application could involve prompting for CRB (e.g., requesting that the client increase eye contact or adjust the brim of the hat to allow the therapist to better see his/her expressions so as to better understand and connect with him/her) and attempting to reinforce it. A Level 3 application would add a discussion of the client's reaction to the therapist's request and response and how it translates to daily life, possibly with a corresponding homework assignment.

A concern might be that the in-session targets are not necessarily selected based on a case formulation fully rooted in idiographic functional analysis. As such, the therapist may be too guided by topographical matches of in vivo behavior with forms of behavior described in the standard formulation of the problem or a particular disorder. For instance, imagine a client being treated for depression by a therapist using a FAP-enhanced cognitive therapy (FECT; Kohlenberg et al., 2002) approach. The client is describing a negative life event from the prior week to the therapist. A therapist's reflective listening response reveals that he/she did not fully understand a statement the client made. The client responds to being misunderstood by saying "I'm so horrible at explaining things. I can't even explain my problems right." This could be identified as an in vivo instance of a cognitive distortion and cognitive restructuring might occur through a genuine exchange between the client and therapist about the role both played in contributing to the misunderstanding. Thus

a daily life problem manifested in therapy and was targeted in vivo.

However, to illustrate the risk that a therapist might rigidly apply the FAP rules and emphasize topographical similarities at the expense of function, consider an alternative interpretation of the in vivo instance of cognitive distortion above. Imagine the misunderstanding functioned to provide an opening for escape behavior. Imagine that disclosing the life event was growing increasingly aversive (as it can when, for example, a therapist is doing a quite detailed chain analysis of a problem incident or because the description generates powerful negative emotions). In such a circumstance, attending to the misunderstanding would divert attention from the task at hand and/or staying present with negative emotions. That is, by attending to the match between the topography of the client's response (a negative self-statement occurring in vivo) and responding consistent with a standard cognitive formulation (emphasizing negatively biased information processing) the escape function is missed. The therapist unwittingly reinforces a CRB1, while putatively attempting to prompt and reinforce a CRB2. The problem may be further compounded as the therapist goes on to apply Rules 4 and 5. For instance, the therapist would likely (mis) identify his/her behavior as reinforcing (it would be serving a negative reinforcing function rather than the intended positive reinforcing function) and may design a homework assignment based on this in vivo experience to promote generalization. In this example the therapist followed the FAP rules with fidelity, but the attempt was misdirected based on the failure to ground the formulation in functional analysis.

The concern here is legitimate, but the pervasiveness of the potential problem is unknown and the antidote elusive. Conceptually a thoroughgoing functional analysis would help, but, as discussed earlier, this supposition is based more on faith than evidence at this point (Follette & Bonow, 2009; Hayes & Follette, 1992). This is not a concern specific to FAP. The lack of reliability between individual case formulations and the equivocal data on their incremental impact on clinical outcome are recognized in cognitive-behavioral efficacy research (Kuyken, Fothergill, Musa, & Chadwick, 2005). Research in cognitive therapy has failed to demonstrate a robust influence of individualized case formulations over the application of nomothetic formulations provided in treatment manuals (Kuyken, Padesky, & Dudley, 2008). The same research questions apply to FAP. That is, does one need a more well-developed, function-based case conceptualization or is it enough for a therapist who understands the function-topography distinction to consider in session parallels to daily life problems in the context of a standard formulation (Weeks et al., 2011)? The levels of FAP application described herein might facilitate research examining such questions.

A PRELIMINARY RESEARCH EXAMPLE

The authors are currently conducting a study examining whether FAP produces a stronger therapeutic alliance and higher ratings of session efficacy compared to supportive listening (SL). The participants are collegians who report having difficulties in their interpersonal relationships. Inclusion requires scoring at least one standard deviation below gender-based normative mean scores on the Miller Social Intimacy Scale and the Fear of Intimacy Scale. A restricted alternating treatments design is being used. Participants attend two pretreatment assessment sessions followed by 6-10 weekly treatment sessions of FAP or SL. The length of treatment is determined based on the amount of time left in the academic semester at the time of enrollment. The sequencing of sessions (SL or FAP) is determined at random with the restrictions that the first session be SL and the last session FAP and that no more than two consecutive sessions of the same treatment can occur in a row.

The pretreatment assessment involves collection of self-report inventories (including the Functional Idiographic Assessment Template Questionnaire, Callaghan 2006) and clinical interviewing regarding psychological functioning and daily life interpersonal relationships. At the conclusion of the pretreatment phase, a basic FAP rationale is provided and the 5-column FAP case conceptualization form (Kohlenberg & Tsai, 2000) completed collaboratively with the participant.

The independent variable is the type of treatment provided: SL or FAP. SL sessions focus on helping the participant become more aware of his/her daily life interpersonal experiences, without actively attempting to promote behavior change. The therapist asks open-ended questions that center on the participant's interpersonal experiences and responds with empathic and reflective listening, communication and expression of empathy and interest, and by asking clarifying or follow-up questions. FAP sessions represent a Level 3 application of FAP and the notion of the logical FAP interaction. The therapist watches for CRB consistent with the initial case conceptualization and information that is obtained as the interaction history with the client progresses. An example would be a female participant who has difficulty interacting with her boyfriend when she feels she has disappointed him, having difficulty interacting with the therapist around her incomplete therapy homework. The therapist's awareness of this as a potential CRB (Rule 1) is used to attempt to prompt a CRB2 (Rule 2), which the therapist endeavors to react to in a manner that provides meaningful social reinforcement (Rule 3), followed by a check-in with the participant at some point during the session to gauge his/her response to the therapist (Rule 4), and to discuss how the in session interaction may share functional similarities with out of session behavior that then might be targeted for implementation in daily life (Rule 5).

At the completion of each session, SL or FAP, the participant completes several brief session rating scales, including the FAP Session Bridging Form (FSBF) where aspects of the session are rated on a 0-10 scale (on which higher is better). The session rating forms are sealed by the participant upon completion and only opened once the participant has completed the treatment protocol. Thus far 16 individuals have been screened, 10 qualified for participation, 9 completed the pretreatment assessment phase, and 8 have completed at least 6 treatment sessions. Because we must wait until completion of treatment to access session ratings, data analysis has just begun. For illustrative purposes we provide FSBF data from 4 participants who recently completed treatment. The data are the two questions of greatest interest from the FSBF: the helpfulness/effectiveness of the session (efficacy) and how connected the client felt to the therapist (connectedness). These data are displayed in Figure 1 and sug-

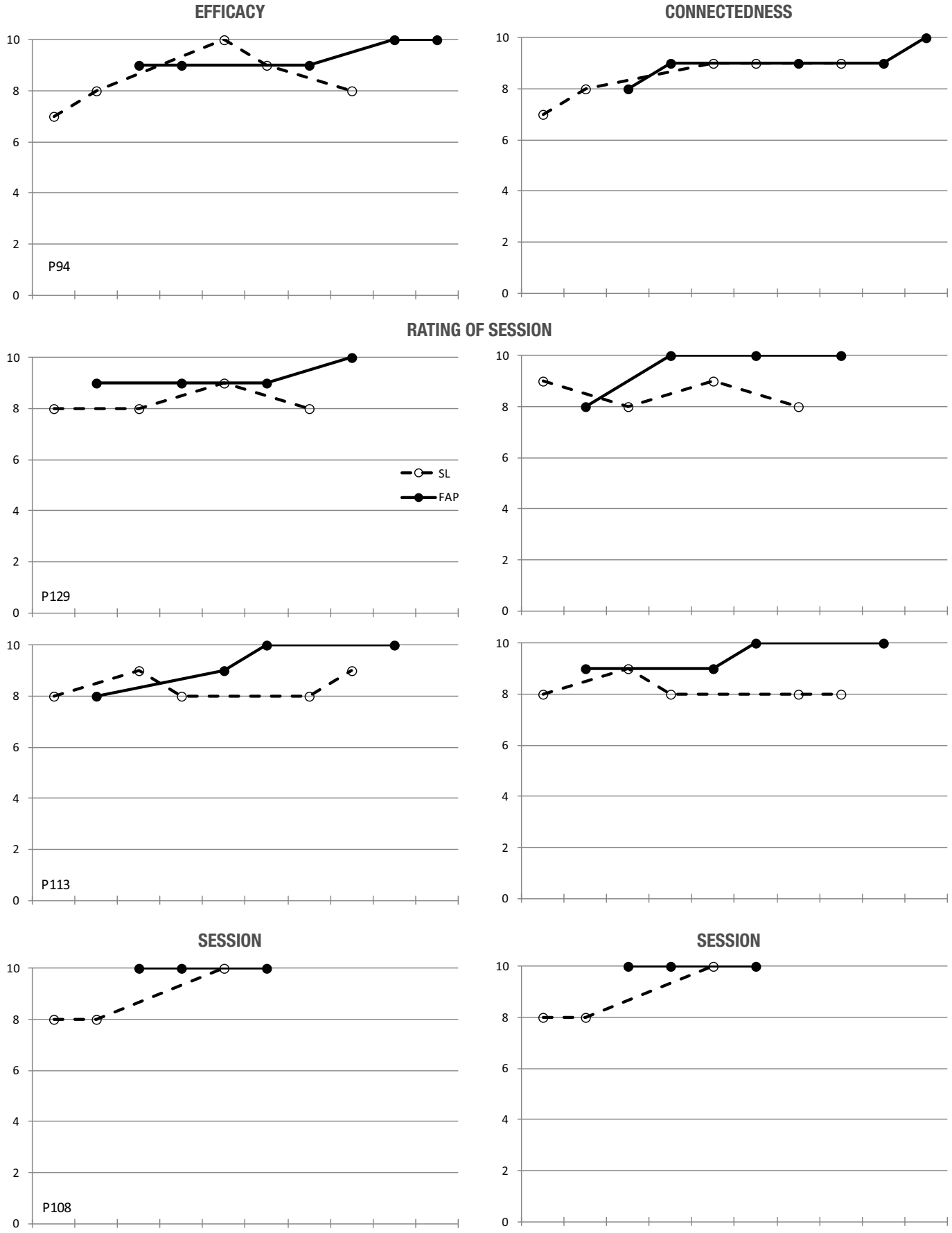

Figure 1. Session-by-session participant ratings of the helpfulness/effectiveness (efficacy) and connectedness with the therapist (connectedness) following supportive listening (SL) and FAP sessions.

gest that while the session ratings were very high in both conditions, suggesting the participants found SL beneficial, there was a quite consistent effect suggesting greater efficacy and connectedness in the FAP sessions. These data are preliminary, but if the findings are consistent across the full data set (and other measures collected), they would suggest, consistent with predictions, that even across a relatively brief therapeutic time frame FAP offers incremental benefits over generic client-centered therapy strategies. This a relatively stringent control condition and as such would set the stage for a randomized clinical trial comparing SL and FAP.

CONCLUSION

An approach to promoting FAP efficacy research was advanced that suggests interpersonal relating as a domain of focus and describes four levels of FAP application to contribute to specifying FAP as an independent variable for use in research. This approach is offered as a complement to micro-process research and studies examining FAP as an enhancement to empirically-supported treatments. It is hoped that the results from such research will coalesce with data from other methods, allow for treatment developments in FAP to be more empirically-based, and to allow for studies that integrate molar and micro-process data.

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