Empirical research

Relationship science informed clinically relevant behaviors in Functional Analytic Psychotherapy: The Awareness, Courage, and Love Model

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ABSTRACT

The use of idiographically defined target behaviors in Functional Analytic Psychotherapy (FAP) has limited participation in a reticulated model of treatment development. One way to address this limitation is to offer a standardized set of clinical targets for FAP. The current study details a method of identifying standardized treatment targets in FAP using the Awareness, Courage, and Love (ACL) model. The applicability of the model was assessed by evaluating the degree to which previously identified clinical targets in FAP research correspond with the proposed specific categories of the ACL model. There is an 83.67% fit between past idiographic targets and current standardized targets. We discuss how ACL may be clinically useful and encourage more integrative treatment development for FAP.

1. Introduction

A contextual behavioral science (CBS) approach to research has the goal of predicting and influencing psychological events with precision, scope and depth (Hayes, Barnes-Holmes, & Wilson, 2012). Consistent with its classical behavior analytic roots, CBS emphasizes functional analyses and use of behavioral principles to understand complex human actions in context. Unlike classical behavior analysis, CBS is more liberal with respect to the roles of language, cognition, and private events in these analyses. Further, unlike classical behavior analysis, which emphasized idiographic functional analyses of individual actions, CBS emphasizes *analytic-abstractive* models, which organize and abstract sets of functional analyses into pragmatic, generally applicable constructs. These constructs ideally are languaged precisely in terms of behavioral principles, but also can be described as middle-level terms when the pragmatic benefits of such language balance the loss of precision. In CBS, analytic-abstractive models are informed by a reticulated network of knowledge, integrating research across domains including basic principles, clinical observations, empirical findings from multiple methodological approaches, and other sources of influence (Hayes et al.,2012, pp 5–8).

Although Acceptance and Commitment Therapy is the archetypal CBS approach, Functional Analytic Psychotherapy (FAP; Kohlenberg & Tsai, 1991) is also situated within the CBS framework (Kanter, Holman, & Wilson, 2014). FAP postulates that the therapeutic relationship shares functional similarities with relationships in the client's day-to-day life. As such, the behaviors that are problematic in the client's day-to-day life are likely to occur with the therapist. When these functionally similar behaviors occur in the therapy session, they are referred to as clinically relevant behaviors (CRB). The therapist responds contingently to CRBs to shape a more effective behavioral repertoire by punishing or extinguishing problematic behaviors (CRB1) while reinforcing desirable responses (CRB2). This process is described in terms of five rules that guide therapist behavior in FAP: Rule 1 is to observe CRBs, Rule 2 is to evoke CRBs, Rule 3 is to reinforce CRB2s, Rule 4 is to observe the potentially reinforcing effects of therapist behavior in relation to CRBs, and Rule 5 is to give functional interpretations of client behavior in the service of generalization.

Although FAP is considered to be a CBS approach, most descriptions of FAP have emphasized classical behavior analytic principles rather than analytic-abstractive models. Defining FAP's techniques in these classic behavior analytic terms, specifically as five functional rules and the idiographic concept of CRBs, allowed FAP's therapeutic process and notion of CRBs to be brought to bear on various presenting problems and in different clinical contexts (Kanter, Tsai, & Kohlenberg, 2010). Frequently, however, applications of FAP converged on the target of social functioning, and seminal texts on FAP (e.g., Kohlenberg & Tsai, 1991; Tsai et al., 2009) presented a treatment approach that prototypically targeted a client's interpersonal problems. However, no framework for assessing or describing these social functioning problems was advanced in seminal FAP texts.

The lack of a pre-specified CRB content to assess, and emphasis on

an idiographic approach to defining CRBs in clinical descriptions of FAP, created problems for researchers (Follette & Bonow, 2009; Maitland & Gaynor, 2012) and may be at odds with a modern CBS research agenda that benefits from analytic-abstractive models rather than restricting itself to individual functional analyses (Kanter et al., 2014). Namely, FAP has not specified a clinically useful model of disorder or problems that would link to or facilitate basic experimental or psychopathology research on its purported targets or identify a specific dependent variable to facilitate consistent outcome measurement across intervention studies. FAP clinicians, in accordance with a traditional behavior analytic approach to functional assessment (e.g., Follette, Naugle, & Linnerooth, 2000), are taught to identify problematic classes of behavior (CRB) to intervene upon based on the unique case conceptualization of the client and are free to define CRBs as they see fit. This has constrained FAP to a more traditional bottom-up behavioral analytic approach to research rather than a reticulated, more inclusive CBS approach that would produce consilience with other areas of mainstream psychological research.

The majority of FAP research is anchored in case presentations and single subject research in which researchers assessed idiographically defined behaviors. FAP researchers rarely attempt to define group-level outcomes (cf. Kohlenberg, Kanter, Bolling, Parker, & Tsai, 2002; Maitland, Petts, et al., 2016) or link to a larger scientific literature. As such, some the strongest empirical support for FAP accrues from single subject design studies that identified and coded in-session CRB as per an idiographic case conceptualization (Busch et al., 2009; Busch, Callaghan, Kanter, Baruch, & Weeks, 2010; Callaghan, Summers, & Weidman, 2003). Other studies investigating FAP processes incorporated both in-session coding of CRBs and client tracking of corresponding daily life problem and improvements using individualized diary card formats (Kanter et al., 2006; Landes, Kanter, Weeks, & Busch, 2013; Lizarazo, Muñoz-Martínez, Santos, & Kanter, 2015; Villas-Bôas, Meyer, & Kanter, 2016).

Some of these investigations (e.g., Pedersen, Callaghan, Prins, Nguyen, & Tsai, 2012) employed the Functional Idiographic Assessment Template (FIAT; Callaghan, 2006), a taxonomy of five functional classes of behavior relevant to interpersonal functioning to potentially target in FAP. The FIAT presented a detailed functional analysis of each behavioral class for the clinician to consider when assessing potential clinical targets, specifying relevant antecedents and behaviors (both behavioral excesses and deficits) with the assumption that behaviors are maintained in the environment through social reinforcers. In previous research, the FIAT often was used faithfully (Busch et al., 2010; Callaghan et al., 2003), but other researchers started assessment with FIAT taxonomies but arrived at definitions of CRBs that are not clearly related to the FIAT scheme (Kanter et al., 2006). Other researchers approached the problem of FAP assessment and case conceptualization with idiographic functional assessment strategies developed for behavior analytically inclined clinicians but unrelated to the FIAT (Muñoz-Martínez & Novoa-Gómez, 2011), while others have not specified how the therapist and client developed the idiographic case conceptualization at all (Maitland and Gaynor, 2016).

Despite the lack of consensus with respect to how to assess and measure CRB content and development, initial studies on FAP outcomes are promising. A meta-analytic review of 14 FAP single-subject research designs produced an overall effect size in the "fairly effective" range, with clinically significant mean reliable change index scores (Singh, 2016). Single-subject research plays an important role in the initial stages of behavioral treatment development. However, in addition to providing initial preliminary data on the treatment, this research should participate in a reticulated network to produce an integrated theoretical model of disorder and strategies for nomothetic outcome measurement to facilitate larger group designs (Hayes et al., 2012; Rounsaville, Carroll, & Onken, 2001). To date, the idiographic nature of treatment targets produced by existing FAP research has not facilitated these developments.

To address these limitations, the current analysis is designed to address whether a pragmatic, analytic-abstractive clinical model can be developed as the basis of a research agenda for FAP. As an analytic-abstractive model (Hayes et al., 2012), the model we propose below is strategically abstract, general, and less behaviorally precise compared to classic three-term contingency analyses which may be more familiar to FAP researchers. Our model relies on empirical findings from non-behavioral research domains to define constructs, which would not happen with a classic behavior analytic approach, but it formulates these constructs in functional, contextual-behavioral processes as per an analytic-abstractive model. Specifically, because FAP broadly targets social functioning and problems with intimacy, we looked to basic research on the development of intimate relations from relationship science as a primary source. We organized these research findings in terms of functional relations that specify key antecedents, behaviors, and responses in clinically useful terms, and vetted them against our clinical observations and experiences conducting FAP. To integrate existing FAP research and explore the clinical research fit of our model, we conducted an independent analysis of CRBs presented in existing FAP research and determined the degree of correspondence between previously identified clinical targets in FAP and our clinical model.

1.1. An analytic-abstractive model of intimacy for FAP

Consistent with the *interpersonal process model of intimacy* (Reis & Patrick, 1996; Reis & Shaver, 1988), the core construct of our model is the process of *vulnerability-responsiveness relations* (VRRs), which is empirically established as fundamental to intimate relationships, a frequent target in FAP. As per Fig. 1, VRRs describe a reciprocal dyadic process in which one member of the dyad (the "speaker") displays contextually evoked vulnerability and the other (the "listener") responds in a safe, accepting, understanding, and caring way. Theoretically, this listener response is posited to be naturally reinforcing, increasing the likelihood of the speaker's vulnerable disclosure in the future and increasing the experience of intimacy in the dyad (Cordova & Scott, 2001). The reinforcing functions of the listener's response have been experimentally demonstrated in several studies
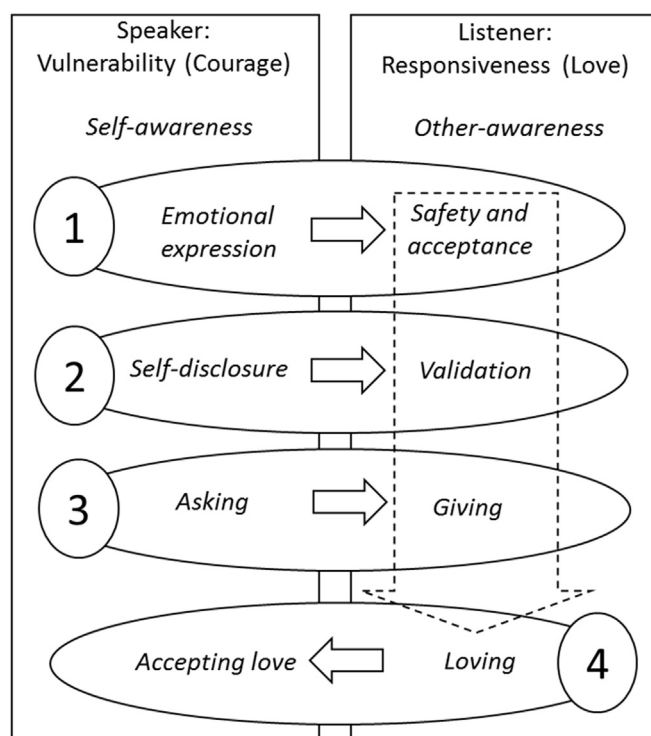

Fig. 1. The Awareness, Courage, and Love Model.

(Forest & Wood, 2011; Haworth et al., 2015).

This fundamental relation between vulnerability and responsiveness underlies many of the field of relationship science's far-ranging findings (Reis, 2007; Reis, Collins, & Berscheid, 2000). For example, when an individual is involved in a relationship characterized by reciprocal VRRs, improvements accrue in intimacy and relationship satisfaction across relationship types, including strangers (Aron, Melinat, Aron, Vallone, & Bator, 1997; Lemay & Clark, 2008; Reis et al., 2010; Sprecher, Treger, Wondra, Hilaire, & Wallpe, 2013), cross-racial strangers (Page-Gould, Mendoza-Denton, & Tropp, 2008), roommates (Canevello & Crocker, 2010), and romantics/couples (Gable, Reis, & Downey, 2003; Gable, Reis, Impett, & Asher, 2004; Laurenceau, Barrett, & Pietromonaco, 1998; Laurenceau, Barrett, & Rovine, 2005). Thus, as the basis of an analytic-abstractive model in CBS, the construct of VRRs demonstrates expansive scope across domains of social interaction, in that it may be observed in different topographies within friendship, family, romantic, and client-therapist relations. The construct also demonstrates depth, in that it is consistent with cross-disciplinary constructs and findings (Reis, 2007).

In our model, we have defined three sub-relations within this larger vulnerability-responsiveness relation to produce a more clinically useful set of middle-level terms. Each relation specifies a speaker behavior and listener consequence that relationship science has identified as highly probable and naturally occurring in successful intimate relationships. The model also orients users to key antecedents that are evocative with respect to both the speaker's and listener's behavior. These are framed in terms of two "awareness" behaviors, *self-awareness* for the speaker and *other-awareness* for the listener, and are discussed below. Our model identifies 8 behavioral skills to assess in FAP for a full conceptualization of a client's functional strengths and weaknesses with respect to an analytic-abstractive model of social intimacy. Each skill is now briefly described and Fig. 1 presents a visualization of the overall model (the fourth relation in Fig. 1 is described in the discussion of this paper).

The first sub-relation requires a speaker to be skilled at emotional expression and the listener to be skilled at responding with safety and acceptance. This sub-relation integrates many established findings. Since Darwin's (2005)/(1872) proposal that emotions are evolved adaptations that serve fundamental social communication functions, our field largely has achieved consensus that regulated, authentic expression of emotion is beneficial for social interaction in general (e.g., Van Kleef, 2010) and for the development of intimacy in particular, and when this expression is suppressed or otherwise does not occur, problems accrue (Kennedy-Moore & Watson, 2001). Emotional suppression has negative effects on the development of intimacy, leading the listener to report less rapport and less motivation to pursue a relationship with the suppressor (Butler et al., 2003) and the suppressor to report poorer social support, fewer close relationships, and less likeability (Gross & John, 2003; Srivastava, Tamir, McGonigal, John, & Gross, 2009). Early in treatment, CRB2s identified here include any expression of emotions in interpersonal contexts, including simply staying in an emotional interaction. As treatment progresses, more appropriate and contextually congruent expression of emotion would be recognized as CRB2, whereas extreme or muted expression of emotion would be classified as CRB1. CRB1s identified in this sub-relation map on to the well-known construct of experiential avoidance (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996) when it occurs in an interpersonal context.

Regarding the listener, when one person does not avoid or suppress but rather expresses emotion in the exchange, the listener first and foremost must respond to the other with safety and acceptance and not punish the expression. Consistent with fundamental tenets of attachment theory (Ainsworth, 1989), from the earliest moments of infancy, emotional expression occurs as an interaction, and signals of emotional expression must be responded to by a safe, attentive, and soothing caregiver for healthy attachments to develop. This interaction serves as

the basis for secure attachment later in life, and safety and acceptance remain paramount for a partner to be perceived as responsive throughout adulthood (Reis, Clark, & Holmes, 2004). Thus, responding to speakers' expressions of emotion with safety and acceptance may be seen as a primary intimacy skill for the listener (CRB2). CRB2s here include non-verbal indicators of attention and synchronized emotional engagement (e.g., Hasson, Ghazanfar, Galantucci, Garrod, & Keysers, 2012; Jiang, Dai, Peng, Liu, & Lu, 2012; Porges, 2011), explicit verbal indicators of attention, safety and acceptance, and responsive touch (Robinson, Hoplock, & Cameron, 2015). CRB1s include attempts to suppress or punish the speaker's emotional expression due to one's own avoidance tendencies or other factors.

The second sub-relation requires a speaker to engage in appropriate, emotionally congruent self-disclosure and the listener to be skilled at responding with validation. Individuals must appropriately talk about themselves—their thoughts, feelings (both positive and negative), memories, values, and identity—for relationships to develop (Rimé, 2009), this talk must be received with validation and understanding (Haworth et al., 2015). Although some disclosure may not be vulnerable (e.g., small talk), our model emphasizes disclosures involving emotions and vulnerability for the development of intimacy, as supported by ample research (Alea & Bluck, 2003, 2007; Brunell et al., 2010; Collins & Miller, 1994; Gable, Gonzaga, & Strachman, 2006; Graham, Huang, Clark, & Helgeson, 2008; Luminet, Bouts, Delie, Manstead, & Rime, 2000; Pasupathi & Rich, 2005; Ullman, 2011). CRB2s for the speaker here include emotionally congruent expressions of both negative and positive events and emotions.

Regarding the listener's responsiveness to self-disclosure, we use the summary term "validation" and see it as inclusive of the subtle, tailored, empathically attuned, emotionally supportive responses that are needed, especially when the speaker's emotional distress is high. Listener skills here include discriminating that the interaction requires a validating response rather than a more specific form of support such as problem-solving or advice. Much research indicates that this discrimination is essential for relational well-being, and that a listener responding to a speaker's simple self-disclosure instrumentally is often experienced by the speaker as invalidating and punishing rather than reinforcing (e.g., Cutrona, Cohen, & Igram, 1990; Cutrona, Shaffer, Wesner, & Gardner, 2007; Horowitz et al., 2001; Shrout, Herman, & Bolger, 2006). Thus, CRB2s for the listener include empathically accurate and tailored expressions of validation and understanding.

The third sub-relation involves a speaker having skill to ask for what he/she needs, and the listener to provide natural reinforcement of these requests by giving the speaker what he/she asked for. This relation derives from ample research establishing the interpersonal benefits of asking for and giving specific instrumental support in relationships (e.g., specific information, advice, problem-solving, practical help, tangible assistance), distinct from the second sub-relation which involves self-disclosing to receive understanding and emotional support (Brown, Nesse, Vinokur, & Smith, 2003; Feeney & Collins, 2015; Morelli, Lee, Arnn, & Zaki, 2015; Shrout et al., 2006; Sullivan, Pasch, Johnson, & Bradbury, 2010). Many psychological interventions attempt to improve clients' social support, suggesting it is important to distinguish this sub-relation as a set of clinical targets (Hogan, Linden, & Najarian, 2002). The distinction between the second and third sub-relations is also consistent with the empirically based model of social sharing proposed by Rimé (2009) which provides empirical support for a distinction between a social-emotional mode of sharing (the second sub-relation) and a cognitive mode of sharing (the third sub-relation). Finally, the distinction between these two sub-relations is consistent with the distinction between tacting and manding (Skinner, 1957). Specifically, we propose that self-disclosure functionally maps on to tacting and a generically reinforcing, validating response is likely sufficient, while asking functionally maps on to manding and requires a more specific response; what the specific response is depends on what

was asked for. Thus, clinically, the model reformulates multiple findings from relationship science on the importance of emotional and instrumental support in functional terms, specifying relevant speaker behaviors and listener responses as potential clinical targets in FAP.

CRB2s for the speaker in this sub-relation include making specific requests, other behaviors such as saying "no" and setting limits which generally have been categorized as assertiveness (e.g., Duckworth, 2009), and self-care and self-enhancement behaviors that are negotiated in relationships and also have been documented as important to relational health (e.g., Fitzsimons & Shah, 2008). Similar to providing validation, CRB2s for the listener here require empathic accuracy to distinguish the specific request and need and what would be most supportive for the speaker in response.

In addition to these three sub-relations (which specify six possible clinical targets), our model (Figure 1) specifies two *awareness* targets: *self-awareness* and *other-awareness*, which involve the behavioral skill of discriminating relevant private events and other antecedents to maximize successful behavior within the sub-relations. These targets summarize multiple findings from relationship science on important antecedents that evoke vulnerability and responsiveness in successful intimate interactions. For example, a speaker's emotional clarity directly predicts extent of emotional disclosure and subsequent well-being in adults (Saxena & Mehrotra, 2010) and subsequent relational quality in married couples (Cordova, Gee, & Warren, 2005; Wachs & Cordova, 2007), while a listener's awareness of the other predicts successful responsiveness and relational well-being in dyads (Finkenauer, Wijngaards-de Meij, Reis, & Rusbult, 2010; Gable et al., 2003). Other-awareness maps on to the constructs of empathic accuracy and perspective taking, which are seen as fundamental to promotion of prosocial behavior in general (Batson, Lishner, & Stocks, 2015) and relationship quality in particular (Cramer & Jowett, 2010; Davis & Oathout, 1987; Ickes & Hodges, 2013; Long & Andrews, 1990; Schröder-Abé & Schütz, 2011). Thus, clinically, these findings suggest that is important to assess the degree to which clients have awareness of their feelings and needs, and are able to take the perspective of the other and empathically attune to the other's feelings and needs. This awareness allows these feelings to influence their behavior in value-guided rather than destructive ways. CRB2s related to self-awareness also includes awareness of one's values, needs, and identity while in a social interaction, and CRB2s related to other-awareness include awareness of the other's feelings, values, needs, and identity while in a social interaction.

Our model as currently articulated, which emphasizes discriminating feelings and other private events as antecedents for other behaviors, runs the risk of creating behavior-behavior relations, rather than locating antecedents in the client's environment, and may produce a functionally incomplete account (Hayes & Brownstein, 1986). The full functional account is beyond the scope of this paper, and possibly unnecessary for clinical purposes, as our intention is to produce a clinically useful model. Briefly, the full sequence begins with historical, contextual and environmental events with establishing, eliciting, and evocative functions. Elicited emotions participate in complex behavioral chains, and awareness of these features appears to be clinically important. This move is consistent with a host of mindfulness and acceptance skills seen as fundamental across third-wave interventions (Hayes, 2004) as well as self-monitoring skills from traditional behavioral interventions. Overall, self- and other-awareness increase contact with important antecedents for reciprocal exchanges of vulnerability (emotional expression, self-disclosure, and asking) and responsiveness (safety/acceptance, validation, and giving) which are hypothesized as highly probable, natural functional relations when the desired outcome is social intimacy between two individuals in a relationship.

As per Fig. 1, consistent with Tsai et al. (2009), our model employs the term *courage* as a summary term for the set of speaker vulnerability behaviors specified in these sub-relations, and employs the term *love* as a summary term for the set of listener responses to the speaker. The

model articulates sets of awareness, courage, and love clinical targets in FAP. Although ACL were first presented by Tsai and colleagues as descriptions of therapist qualities related to competent implementation of FAP, supplementing descriptions of FAP's five rules, we saw these terms as applicable to the clinical model to guide assessment and case conceptualization of client problems and targets in FAP. This use of a common language to describe important therapeutic qualities and clinical targets in FAP is consistent with FAP's fundamental assumption that the therapeutic relationship, and the therapist's responding within that relationship, should be functionally equivalent to the client's other intimate relationships (Kohlenberg & Tsai, 1991; Tsai et al., 2009) and with dominant training strategies in FAP in which therapists employ FAP's five rules to shape each other's ACL repertoires as they would clients (Kanter, Tsai, Holman, & Koerner, 2013; Maitland, Kanter, et al., 2016). Essentially, the assumption in FAP is that it is beneficial for therapists to be skilled at the client repertoire, and that this repertoire is important in executing FAP's rules competently.

1.2. The current study

The current study reviewed all empirical FAP research reports, and identified studies targeting specifically described CRB. We trained an independent rater to assess the degree of correspondence between previously identified idiographic clinical targets in FAP and the specific categories of our proposed clinical model as described above as an initial test of the clinical fit of the ACL model with existing FAP conceptualizations.

2. Methods

2.1. Identification of variables to be coded

To identify articles for the current study, a literature search using the Google Scholar and Psychinfo databases using the search term "Functional Analytic Psychotherapy" was conducted. The reference page of http://functionalanalyticpsychotherapy.com was reviewed to identify articles that were not identified in the database query. These techniques resulted in 201 articles and book chapters that were then reviewed for inclusion criteria based on abstracts. Next, any articles that were not written in English were excluded due to the potential complexity and nuance of language used to describe interpersonal interactions. After removing non-English articles, 143 articles remained in our pool of potential articles to be analyzed. The remaining articles were assessed to see if they implemented FAP, a FAP component, an analysis of a FAP session or a FAP-enhanced intervention. This step of the review yielded 57 articles that could potentially be included in the study, 33 of which identified CRB. If authors noted that the example was a modified case example, the study was excluded as it became ambiguous as to what aspects of the study were modified. Two studies were removed during this step leaving 31 articles to be analyzed. Our next step was to remove studies that implied CRB rather than explicitly identifying the treatment targets, this step left 25 articles to be analyzed. Finally, to be included in the current review, the study had to identify specific CRB and the CRB had to identify a specific behavior (e.g. difficulty receiving feedback) and not a specific domain (e.g. social functioning). Of the 25 articles that specified CRB, 21 articles described the CRBs being targeted in the FAP intervention in a specific enough manner to be included in the current review. In the event that the article included any CRB that met our criteria, all CRB from the study were included for analysis. If an article listed both the CRB1 and CRB2 of a target behavior, only the CRB2 was included for analysis in the current review as the intervention is focused on building an adaptive repertoire. This process resulted in 98 identified CRB.

2.2. Rating procedure

A detailed list of examples of ACL behaviors that could be targeted in FAP, previously developed by the second author, was modified for the purposes of this study by the first and second authors based on extant FAP and intimacy literatures described above. An undergraduate research assistant (RA) was trained to fluency with the ACL examples, consisting of 1–2 h of review of each category followed by discussion of why each item fit the category in which it was classified. General decision rules that the RA was trained in included identifying if the behavior being coded emphasized an intrapersonal or interpersonal behavior to differentiate between coding for awareness (intrapersonal) or courage/love (interpersonal). A second decision point focused on differentiating between generating behavior that led to interpersonal connection (courage) or responding to the other individual (love). A third decision point emphasized differentiating between behaviors that functioned as a request or responding to a request (asking/giving). Finally, the coder was trained to make discriminations between coming in contact with emotion (expressing emotion) or emotional verbal communication (self-disclosure) and the related love response.

Articles were reviewed for further context to facilitate coding of CRBs that might otherwise not have enough context to code. The coder was trained to code excessive verbal behavior as an other-awareness deficit. This was based on the logic that an excessive verbal repertoire signifies losing contact with one's impact on the other and the others' desire to participate or speak, which in turn likely impairs social connection or the formation of intimacy. In articles that articulated CRBs that included multiple ACL characteristics (e.g. "Not explaining clearly what had happened, and [sic] about her own and others' behavior. Blaming others for her own problems. Not admitting her role in the events, not knowing why things had happened that way"), the earliest part of the chain of behaviors, in this case awareness of self ("not explaining clearly what had happened, and [sic] about her own […] behavior"), was coded.

To establish reliability, the first author and the RA independently coded 10 random CRBs from the identified articles. Kappa analyses indicated good agreement between raters (Kappa = .88). Disagreements between coders were discussed and resolved. Given the high level of reliability between the expert and RA, the RA was tasked with coding the remaining 88 CRB. When the RA's codes were compared to the expert coders evaluation of all CRB at the conclusion of the study, agreement remained high (Kappa = .90).

3. Results

Of the 98 CRB coded, 82 (83.67%) were identified as mapping onto the ACL model categories. The awareness category was identified as the best fit for 22 CRB (Table 1). Of those 21, 10 were classified as self-awareness and seemed to group naturally into three clinical themes, including *awareness of emotional experiences* (three CRBs; e.g., "Accurately identify and label his emotional experiences"), *awareness of external influences on behavior* (three CRBs; e.g., "Excessive public control over self"), *awareness of needs* (one CRB; e.g., "Improvements for the client with respect to this class occurred when he clearly identified what he wanted from others."), and *awareness of values* (three CRBs; e.g., "Organize, plan, and act in relation to her own wants and goals").

The other-awareness category contained 12 CRB representing three distinct themes. The first theme, *awareness of other's feelings* (e.g., "being open to moments of intimacy and connection within the therapeutic relationship"), contained six CRB. A second theme, *awareness of other's needs (*e.g., "Talking with no correspondence with the therapist's speech characterized by an absence of correspondence with therapist comments, requests, or other attempts by the therapist to get in to the conversation"), contained three CRB. Finally, the third theme, *awareness of other's values* (e.g., "Recognizing impact of her behavior on the therapist"), encompassed three CRB.

The courage category contained 51 CRB (Table 2). Within the courage domain, 19 CRB were classified as expressing emotion, 17 as self-disclosure, and 15 as asking. Within the CRBs identified as expressing emotion three themes emerged, including *avoidance of evocative stimuli* (10 CRBs; e.g., "Directly approaching and actively engaging in situations that would elicit aversive emotions"), *non-verbal escape behavior* (three CRBs; e.g., "Creating accepting and non-judgmental space for his feelings of discomfort"), and *Tangential conversation to escape* (six CRBs; e.g., "Evading topics (e.g. changing the subject)").

In the domain of self-disclosure, two clinical themes emerged. The first theme, labeled *clear and honest expression* (e.g., "Direct emotional expressions to the therapist (e.g., reporting emotional states"), applied to 10 CRB. A second theme, labeled *passivity* (e.g., "Talking about what he felt, wanted, or intended to do") also emerged; this theme applied to seven CRB. In the domain of asking (15 CRB), two themes containing multiple CRB were identified. Most CRB adhered closely to the primary category of "asking" (nine CRBs; e.g., "Expressions of needs and requests to the therapist"), four CRB converged on the theme of *inaccurate or disguised expression of needs* (e.g., "Identification of needs from therapy and from the therapist & clear requests for assistance from therapist."), one targeted an *over-reliance on others* (an excess of a desirable behavior, "Expressing and describing her opinions about the therapeutic process"), and one targeted *resolving conflict effectively* ("Avoidance of confronting others").

There were 10 CRB that fit into the love category (Table 3). The subrelations of providing safety and acceptance and expressing validation had three CRB each. Giving others what they need contained four CRB. In the category of providing safety and acceptance, two CRB related to *overly intense responding in the presence of emotion* (e.g., "Describing her feelings of the moment") while the third CRB related to *providing productive feedback* (e.g., "Being direct in expressing doubts and confusion, expressing her negative feelings in session and about the therapist with authenticity"). All three codes in the domain of expressing validation related to *dismissing or accepting others thoughts and opinions* (e.g., "Aggressive verbal responses characterized by client expressions of disagreement, judgment or other negative opinions about the therapist's statements, suggestions, opinions or other therapist behaviors"). Two themes emerged in the domain of giving others what they need: Two CRB were related to *aversive reactions to feedback* (e.g., "Reacting in active and constructive ways to criticism"), the third CRB related to *trusting or accepting others feedback* (e.g., "Behavior that consisted of questioning the advice or assumptions of the therapist") and the fourth related to *providing feedback to others* (e.g. "Spontaneous interactions, asking others their thoughts, and being interested in what they had to say").

Of the remaining 16 CRB that did not fit within the sub-relations as described above (Table 4) five were related to *self-acceptance* (e.g., "Excessive self-criticism and rumination"), one was related to *accepting love* (e.g., "Acceptance of support from the therapist"), and 10 were identified as being too broad to define (e.g., "Aggressiveness").

4. Discussion

The current analysis assessed the correspondence between CRB defined in past research on FAP and a newly defined set of therapeutic targets based on an analytic-abstractive integration of the existing empirical literature on intimacy and contextual behavioral principles. This model, labeled ACL, defines 8 clinical targets for FAP including two *awareness* targets (*self-awareness, other-awareness*), three *courage* targets (*expressing emotion, self-disclosure, asking*), and three *love* targets (*providing safety and acceptance, providing validation and understanding, giving*). The targets are integrated into a dyadic interactional model in which awareness targets are functionally significant in discriminating antecedents for courage and love behaviors and love targets are functionally significant as naturally reinforcing consequences for courage behaviors. These antecedent-behavior-consequence sequences

Table 1
Awareness CRB.

CRB as described in article	Detailed narrative provided?	CRB 1 or CRB 2	Article	Clinical theme
Self-awareness				
Accurately identify and label his emotional experiences	Yes	CRB 2	Callaghan et al. (2003)	Awareness of emotional experiences
Inability to describe his emotion in session	No	CRB 1	Landes et al. (2013)	Awareness of emotional experiences
Detect relations between situations and pain	Yes	CRB 2	Vandenberghe, Ferro, and da Cruz (2004)	Awareness of emotional experiences
Not explaining clearly what had happened, and about her own and others' behavior. Blaming others for her own problems. Not admitting her role in the events, not knowing why things had happened that way	Yes	CRB 1	Ferro, Valero, and Vives (2006)	Awareness of external influences on behavior
Excessive public control over self	No	CRB 1	Kanter et al. (2006)	Awareness of external influences on behavior
To maintain social relationships. Not to avoid family reunions by blaming to various indispositions	Yes	CRB 2	López Bermúdez, García, and Calvillo (2010)	Awareness of external influences on behavior
Improvements for the client with respect to this class occurred when he clearly identified what he wanted from others. If the client were questioned about wanting something different from the therapist or others, an improvement would occur if the client acknowledged this were the case, even if he was unclear what he desired to occur	Yes	CRB 2	Callaghan et al. (2003)	Awareness of needs
Define priorities	Yes	CRB 2	Vandenberghe et al. (2004)	Awareness of values
Make her values explicit	Yes	CRB 2	Vandenberghe et al. (2004)	Awareness of values
Organize, plan, and act in relation to her own wants and goals	Yes	CRB 2	Vandenberghe et al. (2004)	Awareness of values
Other-awareness				
Alert and engaged social behavior (e.g., self-correcting tangents and/or apologizing for off-topic discussion)	Yes	CRB 2	Baruch, Kanter, Busch, and Juskiewicz (2009)	Awareness of other's feelings
Being open to moments of intimacy and connection within the therapeutic relationship	Yes	CRB 1	Baruch et al. (2009)	Awareness of other's feelings
Recognize when his impact may be one that distances others and to engage in a different response if he so chose	Yes	CRB 2	Callaghan et al. (2003)	Awareness of other's feelings
Acknowledging her effect on others to the therapist (e.g., describing life circumstances nonjudgmentally and accepting responsibility for her part)	No	CRB 2	Landes (2013)	Awareness of other's feelings
To describe correctly the functional relation between behavior and its consequences. To explain openly what is happening to her, what she does and why, without using excuses or incorrect explanations	Yes	CRB 2	López Bermúdez et al. (2010)	Awareness of other's feelings
Listening carefully and empathically to the therapist's opinion	Yes	CRB 2	Manduchi and Schoendorff (2012)	Awareness of other's feelings
Demanding excessive between-session communication (through text and phone messages)	Yes	CRB 1	Manduchi and Schoendorff (2012)	Awareness of other's needs
Verbose talking characterized by an overabundance of words with few concrete ideas	No	CRB 1	Oshiro, Kanter, and Meyer (2012)	Awareness of other's needs
Talking with no correspondence with the therapist's speech characterized by an absence of correspondence with therapist comments, requests, or other attempts by the therapist to get in to the conversation	No	CRB 1	Oshiro et al. (2012)	Awareness of other's needs
Recognizing impact of her behavior on the therapist (often catching herself and apologizing before feedback)	No	CRB 2	Busch et al. (2010)	Awareness of other's values
Complaining about what had happened, about her life, about the things others did, and about how others treated her. Criticizing others, not understanding other persons' preferences	Yes	CRB 1	Ferro et al. (2006)	Awareness of other's values
Inquiring about the therapist's feeling and thoughts	Yes	CRB 2	Manduchi and Schoendorff (2012)	Awareness of other's values

Table 2
Courage CRB.

CRB as described in article	Detail narrative provided?	CRB 1 or CRB 2	Article	Clinical theme
Expressing emotion				
Emotional/experiential avoidance.	No	CRB1	Cattivelli, Tirelli, Berardo, and Perini (2012)	Avoidance of evocative stimuli
Social isolation and avoidance of relations with others. Being alone, not having anyone to spend her free time with, losing all her social relationships. Being unwilling to talk about looking for alternatives. Being afraid that if she began a new relationship, it would end like the one with her ex-boyfriend. Being socially aggressive (fighting, arguing, insulting, breaking things, etc.)	Yes	CRB1	Ferro et al. (2006)	Avoidance of evocative stimuli
Avoiding bad feelings. Getting upset when she felt anxious or sad, not going to the doctor's or dentist's to avoid physical pain. Avoiding talking about things that made her unhappy. Avoiding feeling anxious. Smoking to calm down. Taking anxiolytics to keep from feeling anxious	Yes	CRB1	Ferro et al. (2006)	Avoidance of evocative stimuli
Going out with friends and classmates	Yes	CRB2	Ferro, Lopez, and Valero (2012)	Avoidance of evocative stimuli
Discussing disagreements and expressing uneasiness	Yes	CRB2	Lizarazo et al. (2015)	Avoidance of evocative stimuli
Sharing private and painful information	Yes	CRB2	Lizarazo et al. (2015)	Avoidance of evocative stimuli
Speaking her truth, regardless of what she thinks the 'perfect' client should say	Yes	CRB2	Manduchi and Schoendorff (2012)	Avoidance of evocative stimuli
Giving reasons for her behavior based in what is going on in the moment (producing CRB3s)	Yes	CRB2	Manduchi and Schoendorff (2012)	Avoidance of evocative stimuli
Directly approaching and actively engaging in situations that would elicit aversive emotions	Yes	CRB2	Manos et al. (2009)	Avoidance of evocative stimuli
More personal and intimate interactions with the therapist	Yes	CRB2	Villas-Bôas et al. (2016)	Avoidance of evocative stimuli
Responding to paranoid thinking in socially pragmatic or intimacy-building ways (e.g., openly discussing and assessing the accuracy of paranoid thoughts and fears regarding the therapist)	Yes	CRB2	Baruch et al. (2009)	Non-verbal escape
Taking risks to be emotionally closer to the therapist	Yes	CRB2	McClafferty (2012).	Non-verbal escape
Creating accepting and non-judgmental space for his feelings of discomfort	Yes	CRB2	McClafferty (2012)	Non-verbal escape
Evading topics (e.g. changing the subject)	Yes	CRB1	Lizarazo et al. (2015)	Tangential conversation to escape
To maintain social relationships. Not to avoid family reunions by blaming to various indispositions	Yes	CRB2	López Bermúdez et al. (2010)	Tangential conversation to escape
Joking and intellectualizing during sessions	Yes	CRB1	Manduchi and Schoendorff (2012)	Tangential conversation to escape
Not taking responsibility for therapists emotional experience and responses	Yes	CRB2	McClafferty (2012)	Tangential conversation to escape
Speaking up more and allowing himself to think about his potential	Yes	CRB2	McClafferty (2012)	Tangential conversation to escape
Pro-social, genuine emotional responding (e.g., sharing information or feelings)	No	CRB2	Landes et al. (2013)	Tangential conversation to escape
Self-disclosure				
Direct emotional expressions to the therapist (e.g., reporting emotional states)	Yes	CRB2	Baruch et al. (2009)	Clear honest expression
Poor communication with wife - not being honest about hard issues	No	CRB1	Kanter et al. (2006)	Clear honest expression
Discussing negative feelings.	Yes	CRB2	Kohlenberg and Tsai (1994)	Clear honest expression
Disclosing or developing and maintaining a prosocial repertoire. This set of problems included the client engaging in a restricted range of over-practiced responses with the therapist and others	No	CRB2	Landes et al. (2013)	Clear honest expression
Discussing his feelings (i.e. fear, sadness) and their effect in session, despite viewing them negatively	Yes	CRB2	Lizarazo et al. (2015)	Clear honest expression
Self-disclosure regarding thoughts and urges to expose was targeted as a CRB − 2 and appropriately reinforced with the natural consequences for the behavior (reciprocated expressions of intimacy) by the therapist each time the behavior was emitted	Yes	CRB2	Paul, Marx, and Orsillo (1999)	Clear honest expression
Problems with under-disclosure; contextual control	No	Class of behavior	Pedersen et al. (2012)	Clear honest expression
Weakening superficial answers on questions regarding his opinion	Yes	CRB2	Vandenberghe et al. (2004)	Clear honest expression
Express feelings and desires in words	Yes	CRB2	Vandenberghe et al. (2004)	Clear honest expression
Making critical judgments about abusive people in her life.	Yes	CRB2	Villas-Bôas et al. (2016)	Clear honest expression
Initiating topics and making requests (e.g., setting agenda for therapy session)	No	CRB2	Landes et al. (2013)	Passivity
Genuine expression (e.g., clearly stating desired therapy topics)	No	CRB2	Landes et al. (2013)	Passivity
Difficulty disclosing thoughts, feelings, and urges related to public exposure during therapy sessions.	Yes	CRB1	Paul et al. (1999)	Passivity
Failure to disclose	No	Class of behavior	Pedersen et al. (2012)	Passivity
Talking about what he felt, wanted, or intended to do	Yes	CRB2	Vandenberghe et al. (2004)	Passivity
Confide and share as well as openly take a stand in interpersonal relations	Yes	CRB2	Vandenberghe et al. (2004)	Passivity
To maintain satisfactory sexual relations. To say "no" openly without blaming physical discomfort. Not to limit activity to the pre- and post menstruation interval	Yes	CRB2	López Bermúdez et al. (2010)	Passivity
Asking				
Improvements for the client with respect to this class occurred when he clearly identified what he wanted from others and then made a direct request for that	Yes	CRB2	Callaghan et al. (2003)	Asking
Expressing her views, needs, desires	Yes	CRB2	Ferro et al. (2012)	Asking

(continued on next page)

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Table 2 (*continued*)

CRB as described in article	Detail narrative provided?	CRB 1 or CRB 2	Article	Clinical theme
Expressions of needs and requests to the therapist	No	CRB2	Holman et al. (2012)	Asking
Directly letting others know what he wanted- in relation to the therapist	Yes	CRB2	Kohlenberg and Tsai (1994)	Asking
Emotional disclosure of any needs related to the therapist, including discussing with him emotionally charged, difficult topics	Yes	CRB2	Manos et al. (2009)	Asking
Assess and assert his needs in session	Yes	CRB2	McClafferty (2012)	Asking
Failure to solicit others' disclosure	No	Class of behavior	Pedersen et al. (2012)	Asking
Giving advice or taking decisions and initiatives concerning in group activity.	Yes	CRB2	Vandenberghe et al. (2004)	Asking
Requesting what she needed	Yes	CRB2	Villas-Bôas et al. (2016)	Asking
Identification of needs from therapy and from the therapist & clear requests for assistance from therapist	No	CRB2	Busch et al. (2010)	Inaccurate or disguised expression of needs
Histrionic behavior (seeking attention, validation, and approval)	No	CRB1	Kanter et al. (2006)	Inaccurate or disguised expression of needs
To take charge of her jobs and accept the more or less desirable risks that these imply. To accept her responsibilities with her domestic chores, journeys and all that should be done according her own values	Yes	CRB2	López Bermúdez et al. (2010)	Inaccurate or disguised expression of needs
Making clear requests for emotional support from the therapist (clean manding).	Yes	CRB2	Manduchi and Schoendorff (2012)	Inaccurate or disguised expression of needs
Expressing and describing her opinions about the therapeutic process	Yes	CRB2	Lizarazo et al. (2015)	Over reliance on others
Avoidance of confronting others	Yes	CRB1	Kohlenberg and Tsai (1994)	Resolving conflict

Table 3
Love CRB.

CRB as described in article	Detail narrative provided?	CRB 1 or CRB 2	Article	Clinical Theme
Providing safety and acceptance				
Describing her feelings of the moment (clean tacting)	Yes	CRB2	Manduchi and Schoendorff (2012)	Overly intense responding in the presence of emotion
Trusting relationships by sharing her feelings with her therapist and expressing her need for closeness from her therapist in a considerate way	Yes	CRB2	Manduchi and Schoendorff (2012)	Overly intense responding in the presence of emotion
Being direct in expressing doubts and confusion, expressing her negative feelings in session and about the therapist with authenticity	Yes	CRB2	Manduchi and Schoendorff (2012)	Providing productive feedback
Expressing understanding, empathy, and validation				
Aggressive verbal responses characterized by client expressions of disagreement, judgment or other negative opinions about the therapist's statements, suggestions, opinions or other therapist behaviors	No	CRB1	Oshiro et al. (2012)	Dismissing others thoughts and opinions
Aggressiveness against the therapist, such as strongly complaining about a small part of something that was said in a previous session without considering the context	Yes	CRB1	Villas-Bôas et al. (2016)	Dismissing others thoughts and opinions
Being inflexible about the therapist's suggestions or requests	Yes	CRB1	Villas-Bôas et al. (2016)	Dismissing others thoughts and opinions
Giving others what they need				
Reacting in active and constructive ways to criticism.	Yes	CRB2	Vandenberghe et al. (2004)	Aversive reaction to feedback
Accepting feedback from therapist appropriately	No	CRB2	Busch et al. (2010)	Aversive reaction to feedback
Behavior that consisted of questioning the advice or assumptions of the therapist.	Yes	CRB1	Vandenberghe et al. (2004)	Trusting or accepting others feedback
Spontaneous interactions, asking others their thoughts, and being interested in what they had to say	Yes	CRB 2	Callaghan et al. (2003)	Providing feedback to others

Table 4
Other CRB.

CRB as described in article	Detail narrative provided?	CRB 1 or CRB 2	Article
Self-Acceptance			
Not accepting her situation. Not accepting that her boyfriend had left her, and all related behaviors such as refusing to talk about him and insulting him during sessions. Not accepting that her plans to form a family and have children no longer made sense.	Yes	CRB1	Ferro et al. (2006)
Poor appearance and self-concept. Complaining about her appearance, not wearing snug-fitting skirts, pants or a bathing suit. Complaining about her age, not wanting to state her age, seeing herself as older than she was.	Yes	CRB1	Ferro et al. (2006)
Excessive self-criticism and rumination.	No	CRB1	Kanter et al. (2006)
To accept her past and the aversive experiences that had occurred in her life. Not to show intense emotional feelings when talking about her past, her depression, her suffering.	Yes	CRB2	López Bermúdez et al. (2010)
Being more self-compassionate	Yes	CRB2	McClafferty (2012)
Acceptance of love from others			
Acceptance of support from the therapist.	No	CRB2	Holman et al. (2012)
Too broad to code			
Behavior that functions to enhance closeness with the therapist (often by verbally recognizing the importance of the therapeutic relationship)	No	CRB2	Busch et al. (2010)
Aggressiveness	No	CRB1	Cattivelli et al. (2012)
Challenging behaviors	No	CRB1	Cattivelli et al. (2012)
Escape	No	CRB1	Cattivelli et al. (2012)
Apathy. Not caring about anything. Not feeling like eating, listening to music, going out, shopping for clothes or reading magazines, but spending her time lying in bed or watching TV. Losing weight. Not having any hobbies. Not talking about other things besides her problems	Yes	CRB1	Ferro et al. (2006)
Providing notice that she would be late to session (e.g. via text or call) or asking to reschedule sessions	Yes	CRB2	Lizarazo et al. (2015)
Discussing emotional issues and expressing feelings toward the therapist and others	Yes	CRB2	Lizarazo et al. (2015)
Inadequate repertoire of descriptions of relationships between his behavior and the variables of which it is a function	Yes	CRB1	López (2003)
The jealousy episodes that occurred during the sessions were functionally equivalent to the episodes occurring in F's daily life	Yes	CRB1	López (2003)
Assume shared responsibility for situations	Yes	CRB2	Vandenberghe et al. (2004)

represent an attempt to distill key findings from relationship science, which generally are not described in contextual behavioral terms, into an analytic-abstractive model of intimate relating that has functional relations as its foundation. This model may bridge the gap between the technically sophisticated language of behavior analysis and language that is more accessible to those without advanced training in behavioral terminology. The accessibility of the ACL language is evidenced by an undergraduate research assistant's ability to apply the labels to existing CRB descriptions with excellent criterion reliability with the FAP expert.

Findings indicate that the targets in the ACL model are consistent with previous idiographic targets described in previous FAP research. Many of the constructs in our ACL model reasonably map on to what previous FAP researchers have identified as core targets. Thus, the model could represent an approach to the conceptualization of CRB in FAP, consistent with previous research on FAP, which emphasizes the need for CRB to be conceptualized as part of a larger functional model and standardized for ease of implementation and understanding.

Several caveats are in order. The ACL model is not intended to replace traditional use of CRB in FAP; rather, the goal is to provide an analytic-abstractive model incorporating a middle level nomenclature useful for both clinicians and researchers as an option for FAP conceptualization. Likewise, this model does not represent a universal conceptualization for FAP (Bonow, Maragakis, & Follette, 2012), in that there will be many clients treated using FAP strategies to whom the model does not apply (Kanter et al., 2010), but we do see the functional relations in the model as highly probable when a client presents with problems related to intimacy and without major co-morbid complicating factors. That said, given FAP's idiographic nature, we believe that there can be multiple clinically useful frameworks for defining CRBs in FAP. This may be one of them.

A strength of the model is that the defined relations were derived from relationship science, where there is considerable consensus on empirically identified predictors of healthy, intimate relationships (e.g., Reis, 2007). Although our analysis suggests that FAP clinicians, at least

in the clinical research we surveyed in this study, often do define individual clinical targets that are similar to our proposed targets, it is not clear how clinicians arrived at these targets or if they were the best choices in terms of an overall analytic-abstractive model of social intimacy. Because our model is grounded in empirical findings from relationship science on what matters in social intimacy, use of our model may align clinicians to important, empirically supported relational targets rather than leaving this to the idiosyncratic discretion and biases of the clinician. Consequently, the model may steer users towards more empirically robust outcomes with respect to improvements in intimate and social functioning.

Consistent with much theoretical writing on FAP (e.g., Maitland & Gaynor, 2012; Tsai et al., 2009), the current results suggest that various intimate and interpersonal behaviors are frequent targets in FAP studies. The distribution and frequency of behaviors falling into the courage category (including expressing emotion, self-disclosure, and asking) in particular suggests that this is a particularly common target. Vulnerable self-disclosure likely represents a foundational client behavior in most psychotherapeutic interactions across theoretical orientations (Farber, 2003); it is easily and naturally evoked in FAP and many of FAP's evocative exercises and training experiences are consistent with this target (e.g., Nelson, Yang, Maliken, Tsai, & Kohlenberg, 2016; Tsai et al., 2009).

Awareness of both the self and the other was also frequently targeted. While self-awareness is a common therapeutic target in various guises across therapeutic modalities (e.g., self-monitoring, insight, and mindfulness), a more unique niche for FAP may be awareness of the other, which was targeted in more FAP studies than was self-awareness. Additional research has suggested that the target of other-awareness may be impacted in brief FAP-oriented groups as well (Kohlenberg et al., 2015).

In contrast to the awareness and courage categories, love was not as frequently represented within previous FAP research. Given voluminous empirical findings (reviewed in our Introduction) on the importance of responsiveness to social intimacy, the fact that previous

FAP research has not adequately targeted "love" behaviors identifies an area in which FAP may be improved by aligning its targets with those empirically validated by relationship science. In Tsai et al. (2009), where the ACL terms were first introduced, most examples of client CRB were consistent with the construct of courage, not love, and love was primarily described as a quality relevant to how therapists may functionally respond to the client CRB2s. In other words, the primary relation described in FAP is one between client *courage* (i.e. *vulnerable self-disclosure*) and therapeutic *love* (*responsiveness*). It is therefore possible that researchers and clinicians do not often consider FAP to be a treatment modality for client presenting problems that fall into the love domain. Alternatively, given the relatively low number of studies that specified CRB with sufficient precision for our analysis, it is possible that despite being a feasible FAP target in clinical situations, love has not been widely targeted by FAP researchers. From a FAP technical skill standpoint, client love behaviors are complex to evoke, in that the therapist should emit genuinely courageous behavior of their own for the client to respond to with love. This seems difficult to implement, as the therapist must establish a context in which a self-disclosure or request directed towards the client is appropriate, consistent with the client's case conceptualization, and functions to elicit client love. It may be seen as an advanced FAP target, especially given that this type of client-therapist interaction is likely to increase the intimacy and intensity of the relationship (Weeks, Kanter, Bonow, Landes, & Busch, 2011).

As per Fig. 1, it is possible that the ACL model could be expanded to include an additional class of CRB not previously defined. Specifically, one class of CRB revealed by this research related to accepting love from the therapist ("Acceptance of support from the therapist"). In essence, this represents a missing link in the earlier model, in that while *love* was identified as a consequence for *courage,* when a client is working on developing increased skill at providing love, a consequence must be provided for this behavior as well. It may be reasonable to expand the model to include accepting love as a functionally significant consequence of love that is emblematic of the reciprocal nature of the process. This category also is consistent with research from relationship science on the importance of *perceived* responsiveness (e.g., Reis, 2007; Reis et al., 2004); in other words, the responsiveness of the loving partner must be received and reinforced by the courageous partner for healthy intimacy to develop.

A number of CRB from existing research did not fit into the ACL model and do not have a logical fit in an expanded model. This suggests that the ACL model does not fully capture all possible FAP targets. This is consistent with our assertion that FAP's broad functional framework may be applied to any in-session behavior observed by the therapist. Several of the identified CRBs not categorized as ACL seemed to be self-oriented targets, including self-criticism, rumination, lack of self-acceptance, and poor self-care. Several other targets appeared to be interpersonal in nature but not precisely located within the ACL model, including excessive reassurance seeking and excessive complaining.

Several unclassified CRBs seemed to represent a problem of operationalization rather than an issue of fit with the model. For example, one of the CRBs that was not coded was "inadequate repertoire of descriptions of relationships between his behavior and the variables of which it is a function." Those with detailed knowledge of FAP will recognize this client functional description of their own behavior as CRB3, which also can be shaped in FAP and are hypothesized to lead to improved functioning (Villas-Bôas, Meyer, Kanter, & Callaghan, 2015). Consistent with FAP's behavior-analytic emphasis on functional descriptions of behavior (e.g., Hayes & Follette, 1992), this description included no topographical content whatsoever, making it difficult to code in the current scheme which relied on content description. Although in general FAP subscribes to the traditional behavior analytic viewpoint that treatment targets should be defined in functional terms (i.e., antecedent-behavior-consequence; Bonow et al., 2012; Hayes & Follette, 1992; Kanter et al., 2009), we found in almost no case

was a complete functional description of the CRB provided that would meet the standards of applied behavior analysis (e.g., Kanter et al., 2006). This perhaps speaks to difficulties implementing functional descriptions in outpatient practice when the targets are the complex behaviors of highly functioning and verbal adults rather than the more discrete, concrete targets of applied behavior analysis (c.f., Darrow & Follette, 2014; Kanter et al., 2014). The CRB that were not coded in the current analysis frequently employed less precise and topographical terms (e.g., "Aggressiveness"). Due to the lack of context, we view difficulties in coding these CRB as limitations in the studies that the CRB were drawn from rather than limitations of the ACL model.

Both the current study and the model have a number of limitations that are important to acknowledge. First, many descriptions of FAP did not meet our inclusion criteria and are not represented in our findings. It is possible that different themes would emerge if more details on these uncoded studies were available. However, there is no reason to suspect that the studies not included are systematically different from those included with respect to treatment targets. Second, while the targets defined in the ACL model did capture most of the included descriptions of CRB, the degree to which ACL maps post-hoc on to previous research does not speak to its clinical or research utility going forward. Further, due to precision needed to identify clinical targets, only publications written in English, the native language of all four authors, were included in the current analyses. It is possible that this English-only analysis represents a confounding variable and that non-English publications deviate significantly from the data presented.

There have been some concerns expressed about the adoption of the terms ACL in FAP. One concern specific to the term *love* in FAP has been published by Darrow and Follette (2014), who note that the term has many uses and is easy to misunderstand. We have heard other concerns, not published, from colleagues at conferences and from anonymous manuscript reviewers. These concerns are largely consistent with those expressed by Foody, Barnes-Holmes, Barnes-Holmes, and Luciano (2013), who note that the precision lost when adopting middle-level terms over basic principles may have downstream negative effects on effective dissemination and implementation that outweigh the gains made in accessibility. The primary concern is that middle-level terms will be disseminated and implemented without integrity to the underlying functional processes thought to be imperative to effective therapy. We suspect that the dissemination of the terms ACL in FAP trainings to date has indeed produced this concerning state of affairs. Our experience is that there is significant variability in how these terms are used informally by those familiar to FAP, and at times they are only loosely anchored to functional processes at best. Given that these terms, first introduced by Tsai et al. (2009), appear to be in widespread use by FAP practitioners, we hope that our incorporation of these terms in a functional, analytic-abstractive model, anchored in empirical findings and functional processes, will align users of the terms with functional processes and improve usage from a functional standpoint. That said, at best they will represent well-defined middle level terms, and future research may benefit from direct comparisons of more traditional, idiographic functional descriptions of FAP targets compared to use of the ACL model to identify targets. Further research is needed to assess if the ACL model impacts the ability of practitioners to observe and manipulate clinically meaningful functional relations.

The ACL model brings a number of strengths to the process of reticulated treatment development (Hayes, Long, Levin, & Follette, 2013) in FAP. The intention to bridge basic and applied terminology may facilitate both clinical implementation and efficacy research. Some FAP writings can be difficult for those who are not fluent with FAP or CBS. The use of this nomenclature was intended to produce high levels of precision, but our analysis of published descriptions of CRBs indicates limited success with this intention. The ACL model introduces constructs that may be less functionally precise but likely improve functional clarity of CRB when used in the context of the larger model, and may be easier to train and implement reliably than traditional

behavioral nomenclature. It is important to note that our intention is not to redefine FAP, but to provide researchers and clinicians a new option for defining treatment targets in FAP that is consistent with CBS.

We believe there is much opportunity for future research using the ACL model for defining CRB. In line with several experimental analog studies on vulnerability-responsiveness relations from relationship science that form the foundations of the model (e.g., Aron et al., 1997), the ACL model has already produced translational analog research on ACL in a FAP, something that had not been possible with a purely functional approach to the topic (Haworth et al., 2015). Studies designed to evaluate the benefits of case conceptualization in FAP using the ACL model are needed. A point of comparison may be use of the FIAT (Callaghan, 2006) to determine treatment targets. A strength of the FIAT is that the treatment targets identified through it are languaged in more precise, behavioral terms (e.g., problems with stimulus control, problems with aversive control) that may make it more likely that these functional processes remain at the heart of FAP conceptualization and treatment compared to the ACL model. However, a strength of the ACL model vis-à-vis the FIAT is that the ACL model proposes a set of targets that are functionally related to each other in the context of multiple findings from relationship science, while the five FIAT classes represent stand-alone categories and it is not clear how they relate to each other or integrate into a larger empirically based model of interpersonal problems. While the benefits of either approach are empirical questions, we prefer a stance that it is important to develop multiple conceptualization frameworks for FAP for different users with different priorities, backgrounds, and emphases. The FIAT and this model represent two approaches and we hope more are developed and evaluated.

Our intention with this effort is to develop a model that will facilitate FAP efficacy research and improve outcomes with respect to social intimacy. Concerns may be raised that any attempt to move FAP away from a purely idiographic approach, which theoretically maximizes the tailoring of the treatment to the individual's unique context, may compromise rather than enhance efficacy. This last point is particularly important given some of the limitations of the empirically supported treatment movement (Tolin, McKay, Forman, Klonsky, & Thombs, 2015) and the established findings of interventions based on functional behavioral assessment in some areas (Hurl, Wightman, Haynes, & Virues-Ortega, 2016). Ultimately, this is an empirical question. Finally, FAP has been described as an approach that can enhance the therapeutic alliance (Tsai, Kohlenberg, & Kanter, 2010) and has demonstrated positive effects on the alliance in an alternating treatments design (Maitland and Gaynor, 2016). Because the ACL model emerges from relationship science on the development of intimate relations across relationship types, it may be a useful framework for not only understanding client CRB but also how strong therapeutic relationships form.

Acknowledgements

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