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The Relation of Rigidity Across Relationships With Symptoms and Functioning: An Investigation With the Revised Central Relationship Questionnaire

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Abstract

The belief that rigidity across relationships is related to greater symptoms and poorer functioning commonly informs the practice of many psychodynamic and interpersonal therapists. Using a profile correlation approach, we tested this hypothesis in a sample of 250 clients and 90 undergraduate control participants. Symptoms and functioning were assessed with the Inventory of Interpersonal Problems (IIP), Global Assessment of Functioning scale, and Brief Symptom Inventory. A revised version of the empirically-derived Central Relationship Questionnaire (CRQ) was used to measure interpersonal patterns. Revisions were made to the CRQ to increase the interpersonal dimensions it captured, reduce its length, and model a higher-order factor structure. The psychometric properties of the revised CRQ were found to be adequate. Rigidity as measured with the CRQ was not related to rigidity measured with the IIP (amplitude) and did not differ significantly among individuals with different interpersonal problems or DSM-IV diagnoses. Contrary to theory, however, greater rigidity across relationships was related to fewer symptoms and interpersonal problems. These relations did not appear due to the valence or the extremeness of the interpersonal patterns used in the estimation of rigidity.

Keywords

relationships; interpersonal; rigidity; consistency; symptoms

Much of the psychotherapy practiced today is interpersonal or psychodynamic in its theoretical orientation (Constantine, 2001; Norcross, Castle, & Hedges, 2002; Poznanski & McLennan, 1999; Worthington & Dillon, 2003). In these theories, individuals are presumed to have characteristic motivations, expectations, and reactions across their interactions with others, or *central relationship patterns*. These patterns are thought to be learned from childhood experiences and used as a template to understand and guide all new relationships (Blatt, Auerbach, & Levy, 1997; Bowlby, 1988; Freud, 1912/1958, 1925/1963; Luborsky, 1984; Malan, 1979; Menninger, 1958; Strupp & Binder, 1984). Across-relationship rigidity is the repetition of interpersonal patterns in interactions with different relationship referents (e.g., expecting rejection from all people at some time or another, but not necessarily in every interaction).¹ People vary in the level of rigidity they exhibit across their relationships with others (e.g., Crits-Christoph, Demorest, Muenz, & Baranackle, 1994). One of the major clinical hypotheses of interpersonal and psychodynamic theories is that, compared to those lower in rigidity, individuals higher in rigidity are less flexible in their ways of thinking, feeling, and behaving across relationships, are less able to adapt to the demands of the relationship, and

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experience poorer quality relationships and greater symptoms as a result (Benjamin, 2002; Bucci, 2000; Kiesler, 1996; Tracey, 2005; Wiggins, Phillips, & Trapnell, 1989). Therapists of these orientations help make clients aware of their relationship patterns, the problems the patterns create, and how those patterns might have developed so that clients can change their interpersonal relationships for the better (e.g., Barber & Crits-Christoph, 1991).

Empirical support for the hypothesis that rigidity in interpersonal relationships is related to greater symptoms and impairment has been mixed. Investigations to date have relied on a number of different methods to estimate rigidity, including amplitude, pervasiveness, dispersion, and profile correlation (for discussions of rigidity estimation in other areas of psychology, see Locke, 2003; Müller et al., 1998; Perkins, Wyatt, & Bartko, 2000; Rafaeli-Mor, Gotlib, & Revelle, 1999; Tellegen, 1988). *Amplitude* is the distinctiveness of an interpersonal theme relative to other interpersonal themes, or how much a certain theme “stands out” in a profile of interpersonal themes. It is measured as vector length in dimensional models of relationship patterns, like the interpersonal circumplex (Leary, 1957). An amplitude of 0 would indicate all relationship themes measured were about at the same level. Higher amplitude would represent that a particular theme was predominant. Data linking amplitude with symptom levels have been equivocal (Gurtman & Balakrishnan, 1998; O'Connor & Dyce, 2001; Tracey, 2005; Wiggins, Phillips, & Trapnell, 1989; Woodward, Murrell, & Bettler, 2005), but amplitude did predict symptom improvement in naturalistic study of psychotherapy (Ruiz et al., 2004).

Pervasiveness is how commonly reported a person's most prominent interpersonal themes are in a sample of narratives. Studies employing pervasiveness estimates have used the Core Conflictual Relationship Theme (CCRT; Luborsky & Crits-Christoph, 1998) method to measure interpersonal patterns. The CCRT was conceived as a way to describe the central conflicts individuals have that are often rooted in their early relationships and that they compulsively repeat throughout later relationships, including the relationship with their therapist (Luborsky, 1974). The CCRT parses interpersonal experience into three theoretical components out of the narratives clients tell. The *wish* (W) is the motivation of the individual in the relationship, the *response of other* (RO) is the perceived or expected behavior of the significant other in response to that individual; and the *response of self* (RS) is the perceived or expected reaction of the individual to the significant other. The most frequently occurring W, RO, and RS make up the formulation of the individual's relationship patterns (the CCRT). Pervasiveness is the ratio of the number of narratives in which the W, RO, or RS from the person's CCRT formulation appeared over the total number of narratives collected. For example, two individuals that vary in their rigidity might both have a CCRT that includes an RS of dominance. Both individuals might relate four episodes about their relationships. The individual lower in pervasiveness might report dominant behavior in only one of the four episodes (pervasiveness = .25) while the individual higher in pervasiveness might describe acting domineering in three of the four episodes (pervasiveness = .75). Pervasiveness scores range from 0 to 1, and higher scores represent greater rigidity. Pervasiveness has been shown to predict longer treatment length (Crits-Christoph et al., 1994) and to decrease over the course of treatment (Crits-Christoph & Luborsky, 1998). However, it was not associated with symptoms at intake in two studies (Crits-Christoph & Luborsky, 1998; Wilczek et al., 2000);

¹In this paper, we only discuss rigidity in interpersonal patterns *across* relationships. However, individuals can also display *within*-relationship rigidity, or the repetition of interpersonal patterns in interactions with the same relationship referent (e.g., continually expecting rejection in every interaction with a parent, but not necessarily from others). Although within-relationship rigidity might lead to greater symptoms and impairment, we believe that across-relationship rigidity is often the construct spoken about by many interpersonal and psychodynamic theorists. For example, Bowlby's (1969) internal working models were formed through early experiences with caregivers, but importantly affected relationships not just with those caregivers but also relationships in adult life. Freud's (1925/1963) pivotal concept of transference was the projection of an early relational conflict on to another individual; namely, the therapist. It is for this reason that we will use the term “rigidity” throughout this paper to refer to across-relationship rigidity.

and changes in pervasiveness were associated with changes in symptoms in one study (Crits-Christoph & Luborsky, 1998) but not in another (Wilczek et al., 2004).

Dispersion is the spread of the distribution of interpersonal themes (Cierpka et al. 1998). Instead of simply examining the repetitiveness of the single most prevalent W, RO, and RS, dispersion takes into account all the Ws, ROs, and RSs rated. Dispersion is usually measured as variance with interval level data. However, the CCRT, used in most investigations of dispersion and symptoms, is nominally scaled (i.e., either the specific W, RO, or RS appeared in the narrative or not). The dispersion of CCRT component scores has been assessed by measures of the concentration of the distribution of responses. Conceptually, dispersion represents the discrepancy between the observed frequency distribution of the different interpersonal patterns rated and the frequency distribution that has the maximum amount of spread given the interpersonal patterns rated (i.e., each interpersonal theme is equally likely to appear in the narratives). For example, two people that differ in rigidity might each tell four narratives, resulting in a distribution comprising of four interpersonal themes. The maximum amount of spread for this distribution would occur if the four interpersonal themes told in the four narratives were unique (i.e., each theme had a one in four chance of occurring in a narrative). The person lower in rigidity might describe wanting to be close in one narrative, distant in the second, submissive in the third, and independent in the fourth. No interpersonal themes are repeated in this person's narratives. The observed frequency distribution for this person would be similar to the maximum possible spread, leading to a higher dispersion (lower rigidity) score. In contrast, the person higher in rigidity might repeat the wish to be distant in the first three narratives but express the wish to be submissive in the fourth. This person's observed frequency distribution would have the wish to be distant occurring in three of the four narratives; the wish to be submissive in one of the four narratives; and the wishes to be close and independent in none of the four narratives. This discrepancy between the observed and maximum spread distributions would result in a lower dispersion (higher rigidity) score. Dispersion values range from 0 to 1, and lower dispersion values represent higher estimates of rigidity. As with pervasiveness, dispersion has an uncertain association with symptoms. Less dispersion (more rigidity) was correlated with symptoms in a large sample of clients and control participants (Cierpka et al., 1998). In another study, dispersion was not associated to several different measures of pathology at intake; did not distinguish between participants with diagnoses from those without; and did not change significantly over the course of therapy (Wilczek et al., 2000).

Finally, *profile correlation* provides an estimate of how similar each client's relationships are in their profiles of interpersonal patterns. Profile correlations are often computed as Pearson correlation coefficients between the scores on any pair of relationships. For example, two people that differ in rigidity might each rate two of their relationships on each of four interpersonal themes. A correlation coefficient would be calculated using the scores on those four themes to determine the similarity between the two relationships. The person higher in rigidity would exhibit a higher correlation coefficient compared to the person lower in rigidity. To obtain an individual's rigidity estimate for multiple relationships or multiple episodes within a relationship, the Pearson coefficients for pairs of relationship episodes are averaged (after Fisher's z transformations). As measured by averaged profile correlations, rigidity has been found to predict better quality relationships, and fewer psychological and physical symptoms (Connolly et al., 2000; Cross, Gore, & Morris, 2003; Foltz et al., 1999; Locke, 2006; Locke & Christensen, 2007). Higher averaged profile correlations, though, were related to longer treatment length (Crits-Christoph et al. 1994).

The contradictory findings in studies of the relation of rigidity in interpersonal patterns and psychological well-being may be due to the fact that some methods may provide better estimates of the construct of rigidity than others. Amplitude is confounded with the extremeness

of a person's interpersonal themes (i.e., a person must necessarily exhibit an extreme level of a relationship theme in order for it to be differentiated from other lower level themes). Extreme wishes and behaviors could potentially account for any relation observed between amplitude and symptoms (for a discussion, see Gurtman & Balakrishnan, 1998; Pincus, 1994; Tracey, 2005). Pervasiveness requires the assumption that there is one clear theme (i.e., CCRT) repeated in every relationship (i.e., the most frequent W, RO, and RS are used in calculation, but not the other Ws, ROs and RSs reported) and does not capture the rigidity over all the interpersonal themes that a person has. Dispersion is better able to simultaneously measure the rigidity of multiple relationship themes. However, it does not distinguish within- and across-relationship rigidity of interpersonal themes (see Locke, 2003, for a related discussion). For instance, one person could be particularly consistent in one relationship but not so in others while another person could be consistent across multiple relationships but not exhibit a particular theme frequently in any one relationship. These two individuals, very different in their relationship rigidity, could still receive the same dispersion score. Across-relationship repetition is typically the construct of interest when talking about interpersonal rigidity and so within-relationship repetition might represent measurement error (see Footnote 1 or Epstein, 1979). Profile correlation, however, offers an advantage over other measures of rigidity by its ability to capture rigidity over a range of interpersonal themes and to selectively estimate within- and across-relationship rigidity by calculating correlations either between relationship episodes with the same relationship referent or between different relationship referents. It is for these reasons we chose to use profile correlation in the current study and limited the measurement of across-relationship rigidity by asking participants to rate one comparable type of interaction (a relationship episode from the worst point of the relationship) for each of several relationships.

Another reason for the conflicting findings might be that the relation between interpersonal rigidity and symptoms and functioning might be curvilinear. Having too much rigidity in relationships may lead to inflexible responding (a positive relation between rigidity and impairment), but too little rigidity may lead to sporadic, unpredictable responding (a negative relation between rigidity and impairment). Both of these types of responding may not meet relationship demands and may cause symptoms and impairment. The contradictory findings observed in the literature may be due to investigating samples that capture only part of this relation (e.g., using linear models; using only clinical or nonclinical participants). To our knowledge, no study has tested a curvilinear relation of rigidity and symptoms in a large sample with broad variability in symptoms and functioning.

The present investigation used profile correlation to assess the relation of rigidity to symptoms and functioning in both a clinical (intake assessment data from clients in several psychotherapy studies) and a comparison (undergraduate students) sample. The large sample size and range of pathology increased the likelihood of detecting any effect of rigidity, which may be small (cf. Crits-Christoph et al., 1994; Barber, Foltz, DeRubeis, & Landis, 2002). Interpersonal patterns were measured using a revised version of the empirically-derived Central Relationship Questionnaire (CRQ; Barber, Foltz, & Weinryb, 1998). Revisions to the CRQ were necessary to increase the number of unique Ws, ROs, and RSs captured by the measure, reduce its length, and account for the high intercorrelation of certain subscales. Thus, this paper has two purposes: first, to present an improved version of the CRQ and test its psychometric properties; second, to use this revised measure to examine the relation of rigidity in interpersonal patterns to symptoms and functioning. Toward the first purpose, we hypothesized that:

- 1a** a hierarchical model of CRQ factor organization would adequately fit the data in a confirmatory factor analysis;
- 1b** each of the CRQ subscales and second-order factors would exhibit moderate internal consistency.

Toward the second purpose, we predicted that:

- 2a our measure of rigidity would be associated with another measure of rigidity;
- 2b rigidity would not distinguish among types of interpersonal problems or specific diagnoses because interpersonal rigidity is a generic indicator of adjustment (i.e., related to distress but not exclusive to any particular diagnosis);
- 2c rigidity in interpersonal relationships would be related to greater symptoms and impairment, as evidenced by a) higher estimates rigidity in the clinical sample compared to the comparison sample and b) significant correlations of rigidity and symptom reports and functioning;
- 2d rigidity would be related to symptoms and functioning in a curvilinear fashion.

Methods

Participants

Clinical Sample—Participants were 250 individuals recruited for research studies on the efficacy of psychotherapy for Major Depressive Disorder, Obesity, Panic Disorder, Generalized Anxiety Disorder, or Borderline Personality Disorder conducted at a large Mid-Atlantic university. Each client attended a comprehensive 2-hour intake interview administered by an experienced master's- or doctoral-level diagnostician. Clients were diagnosed using structured clinical interviews for the DSM-IV (First, Spitzer, Gibbon, & Williams, 1996; First, Spitzer, Gibbon, Williams, & Benjamin, 1996). Clients were included if they had filled out the CRQ and the IIP and were older than 18. Clients were mostly female (68%, $n = 169$) and had an average age of 39 years ($SD = 11.23$). For their primary ethnicity, 2% ($n = 5$) of clients identified themselves as Asian; 13% ($n = 33$) as African; 78% ($n = 195$) as Caucasian; 3% ($n = 8$) as Latino; 1% ($n = 2$) as Native American; and 3% ($n = 7$) as other. For their highest educational attainment, 2% ($n = 5$) of clients had not finished high school; 8% had a high school diploma; 43% ($n = 107$) had some college experience; 26% ($n = 64$) had a college diploma; and 21% ($n = 51$) had a graduate or professional degree (3 did not report their educational attainment). Most (75%, $n = 162$) were either employed or attending school; 25% ($n = 54$) were unemployed (34 did not report their employment status). Table 1 presents their primary DSM-IV Axis I and Axis II diagnoses. Clients did not receive any direct compensation for the intake interview.

Comparison Sample—Participants were 92 undergraduates enrolled at a large Mid-Atlantic university. They completed the experiment to fulfill a research participation requirement for an introductory psychology course. Two females were deemed inappropriate control participants (i.e., a Global Severity Index score on the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) 2 standard deviations above the mean of a normative sample of college students (Cochran & Hale, 1985) and so their data were excluded from analysis. Students were mostly female (63%, $n = 57$) and had an average age of 19 years ($SD = 1.35$). For their primary ethnicity, 25% ($n = 22$) of clients identified themselves as Asian; 1% ($n = 1$) as African; 69% ($n = 61$) as Caucasian; 6% ($n = 5$) as Latino; and 1% ($n = 1$) as other. All had some college experience and were full-time students.

Measures

Central Relationship Questionnaire (CRQ; Barber, Foltz, et al., 1998)—The following is a general overview of the CRQ. Revisions to the instrument and a more detailed description of the current version are presented in the results. The revised measure is available in an online supplement to this article at the following URL [_____](#). Both the previous and current versions of the CRQ measure self-reported interpersonal patterns across

relationships. Participants rate the degree to which each of several Ws, ROs, and RSs are true for a specific interpersonal encounter or relationship episode. They use a 7-point Likert scale that asks the likelihood that a particular interpersonal theme was present in the relationship episode they are describing. This scale was thought to best emulate the dichotomous (i.e., present/not present) scale used for the CCRT, but allows for greater variability in ratings. Ws, ROs, and RSs are based on the empirically-derived CCRT standard categories (Barber, Crits-Christoph, et al., 1998). Participants are instructed to rate their relationships with their romantic partner, mother, father, and same-sex best friend using four separate CRQ's. If respondents do not have a current romantic partner, they are asked to rate a past partner or leave the section blank. If respondents come from a nontraditional family background (e.g., adoptive, multigenerational, or stepfamilies), they are free to choose who they rate as their "mother" and "father." Participants are instructed to rate each of their relationships at their worst point. This procedure is used for two reasons. First, it reduces the influence of situation on ratings by making the relationship episodes for each referent comparable. Second, ratings for relationships at their best point tend to have very low variance because nearly all participants describe their relationships at this point as extremely positive (Foltz et al., 1999; Talley, Strupp, & Morey, 1990). Compared to ratings made for the best point, ratings made for the worst point in the relationship display significantly greater variance for each of the Ws, ROs, and RSs (Foltz et al., 1999). CRQ ratings made at the worst point then might allow for more meaningful variance and therefore discriminations among different groups of participants.

In the present study, both clients and students completed the revised CRQ. Subscale and second-order factor scores for the revised CRQ were computed for each of the four individual relationships (see Table 2 for a list).

Global Assessment of Functioning Scale (GAF; American Psychiatric Association, 2000)—The GAF is a single-item measure of psychological, social, and occupational functioning with documented reliability and validity (Goldman, 2005; Hilsenroth et al. 2000). Clinicians make ratings on a 0-100 scale using 10-point interval anchors, and higher scores indicate better functioning. In this sample, experienced master's- and doctoral-level clinicians with at least 25 hours of training specific to DSM diagnostics assessed clients after a two-hour intake session. Students were not assessed on the GAF. Mean GAF scores for clients were in the "moderate" range of severity (GAF between 51 and 60; American Psychiatric Association, 2000). Reliability estimates were not possible to calculate since only a single rating was made for each client.

Inventory of Interpersonal Problems-64 (IIP; Horowitz, Alden, Wiggins, & Pincus, 2000)—The IIP-64 is a self-report questionnaire that assesses the severity and type of interpersonal difficulties experienced by an individual. Items describe behaviors that the respondent might do too much of or find hard to do. The IIP produces a profile of eight subscales based on an interpersonal circumplex model with two dimensions: dominance and affiliation. Participants' raw scores were standardized based on the norms found in Horowitz and colleagues (2000). We calculated a structural summary of the IIP for each participant (Gurtman & Balakrishnan, 1998), which reduces an individual's profile to three parameters: elevation (mean level of distress), displacement (main type of interpersonal problem, measured in degrees along the interpersonal circumplex), and amplitude (the distinctiveness of a certain theme in a profile, measured as vector length of the interpersonal circumplex). In one study, elevation correlated highly with symptoms and impairment, and displacement correctly categorized clients with personality disorders based on their behaviors in therapy (Gurtman & Balakrishnan, 1998).

Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983)—The BSI is a 53-item self-report measure of psychological distress. Participants rate items describing specific

symptoms on a 5-point Likert scale. For this study, the General Severity Index (GSI), the average level of current distress, was used as recommended by Derogatis & Melisaratos (1983). The GSI has been shown to be reliable and to discriminate clinical and subclinical samples (Cochran & Hale, 1985; Derogatis & Melisaratos, 1983). All comparison participants provided data for this measure. Internal consistency (Cronbach's α) of the GSI was .93 for this sample.

Procedures

Clinical Sample—Participants responded to advertisements placed with local newspapers, radio stations, or public transportation lines for research studies offering treatment for depression, obesity, panic, or generalized anxiety. Participants were also referred by outside health professionals. After an initial phone screening evaluation, participants were asked to attend an intake assessment. In this assessment, participants were administered the structured clinical interviews and were given a battery of self-report measures to complete. The current paper uses clients' CRQ, GAF, and IIP data from this assessment database.

Comparison Sample—Participants registered online for a study investigating their perceptions of the significant relationships in their life. The first 60 participants picked up the study materials (an informed consent sheet, the CRQ, the BSI, and a debriefing sheet) from the investigators' offices and returned the completed materials by mail. The remaining 30 participants completed online versions of the same study materials plus the IIP.

Results

Revising the CRQ

Three goals guided the revision of the CRQ. First, we wanted to increase the number of unique interpersonal dimensions captured by the measure. The original CRQ contained seven W, seven RO, and eight RS subscales. The CRQ was an empirically-derived measure; and the main determinant for the inclusion of Ws, ROs, and RSs as subscales was their reliability. While this method is likely to tap the interpersonal themes that are most important in people's lives, it might not include wishes and behaviors that have a low frequency of occurrence or low variance in the population. To add more dimensions, we reexamined the original item pool generated in the construction of the CRQ. This pool had been created by first developing a representative list of Ws, ROs, and RSs. The category list was primarily based on the standard categories of the CCRT, an empirically-derived classification system of wishes and behaviors (for a discussion and a list of the standard categories, see Barber, Crits-Christoph, et al., 1998). It was supplemented by unique or infrequent interpersonal themes found in clinical case material (1,783 relationship episodes narrated by 93 patients during interviews, Foltz & Barber, unpublished data) and theoretical classification systems (e.g., Benjamin, 1974; Block, 1961; Horney, 1945; Murray, 1938; Leary, 1957; Plutchik & Conte, 1997; Kiesler, 1996). Three clinical psychologists and a research assistant had evaluated the category list for representativeness and agreed that they could not think of other wishes or behaviors not already included. Next, we asked seven judges (two bachelor's level and five doctoral level) to produce item statements that would be synonyms for each of the categories. They created a total pool of 980 item statements, and each category had a minimum of five item statements describing it. Undergraduate students ($N = 167$) then rated how these items applied to their own relationships. In the construction of the original CRQ, categories were retained as subscales if they exhibited moderate internal consistency (Barber, Foltz et al., 1998). Items within each category were kept if they strongly correlated with the total subscale score ($r > .40$) but not with other subscales ($r < .15$).

In the revision of the CRQ, we conducted exploratory factor analyses on W, RO, and RS item ratings separately. CCRT theory suggests that the three components are distinct but is agnostic to the particular themes within each component (Crits-Christoph & Luborsky, 1998). Thus, to uncover the maximum number of factors within each component we used principal components analyses with promax rotation. Factors were retained if they resembled the subscales of the original CRQ or demonstrated moderate internal consistency ($\alpha > .70$) and were conceptually meaningful (i.e., matched one of the *a priori* categories from the list generated in our pilot work). These criteria returned 14 W factors (71 items), 10 RO factors (56 items), and 13 RS factors (68 items). New ratings were collected on these 195 items for 699 participants (567 university students and staff and 132 clients). These ratings were also submitted to an exploratory factor analysis, and factors were selected by their contribution to the variance (Eigenvalues > 1) and their internal reliability ($\alpha > .70$). The results of this analysis largely reproduced the results from the prior factor analysis in that 12 W, 8 RO, and 13 RS subscales emerged (see Table 2 for a list). The W subscales “Be Recognized” and “Be Supportive” incorporated items from the “Be Narcissistic” and “Make Other Feel Good” subscales, respectively. The RO subscales “Is Hurtful” and “Is Submissive” incorporated items from the “Is Deceitful” and “Is Hurt,” respectively. The RS subscale “Am Helpless” was not reproduced.

A second goal of the revision was to reduce the number of items contained in the CRQ. We eliminated items that were redundant (i.e., were highly correlated or were judged to have similar meanings by two clinical psychologists). Additionally, we kept only those items that strongly correlated ($r > .40$) with the total score of their own subscale but not with other subscales ($r < .15$). This resulted in 101 items (40 W, 23 RO, and 38 RS).

A third goal of the revised CRQ was to account for the intercorrelation of subscales, which was expected based on our pilot data and from investigations with the original CRQ (Barber, Foltz et al., 1998). We posited that this interrelatedness might reflect a hierarchical factor structure of the CRQ, much like the clusters found for the standard categories of the CCRT. More specifically, a smaller number of more general Ws, ROs, and RSs might account for the intercorrelation of the CRQ subscales, but that the subscales might still be necessary to best explain the data and useful for idiographic descriptions. We visually inspected the correlation matrices of the W, RO, and RS subscales for the revised CRQ subscales and grouped together subscales that were conceptually similar into five W, five RO, and six RS second-order factors (see Table 2 for a list). We thought that these more basic ways of relating would be useful in studies of relationships, generational comparisons of interpersonal patterns, and interpersonal change during psychotherapy. The revised measure is available in an online supplement to this article at the following URL _____.

We used confirmatory factor analysis to test the fit of a hierarchical model of the revised CRQ factor structure. Confirmatory analyses were used to examine whether the new data fitted the model that had emerged from our exploratory analyses of the pilot data. In this model, individual items loaded on to subscales representing specific Ws, ROs, and RSs, and these subscales loaded on to second-order factors representing more basic ways of relating. Some general Ws, ROs, and RSs had only one loading subscale (e.g., the W “Be Sexual,” which did not appear to have subcomponents). To preserve the hierarchical structure of the model in these cases, the specific subscale was treated as a reference variable for that general factor (i.e., the scale for the second-order factor was set to that of the subscale and the error variance of the subscale was assumed to be zero). Both subscales and second-order factors were allowed to freely covary with other scales at the same level. Separate analyses were run on the covariance matrices for each CCRT component (W, RO, and RS) and for each referent (romantic partner, mother, father, and same-sex best friend), for a total of 12 analyses. LISREL 8.50 was used for the analyses, and we estimated the model by maximum likelihood. Both client and student data were used in these analyses and were assumed to be multivariate normal.

Fit indices for this model are presented in Table 3. Root mean square error of approximation (RMSEA) and the comparative fit index (CFI) are considered to be the most stable and accurate of these indices (Hu & Bentler, 1999). RMSEA values of .05 or less suggest a good fit of the model to the data and values of .08 or less suggest an adequate fit (Browne & Cudeck, 1993). CFI values of .90 or greater represent a good fit to the data (Hu & Bentler, 1999). Almost all analyses (92%) exhibited acceptable RMSEA values of .08 or less, except for the RS component for romantic partner (RMSEA = .09). Half of the analyses (50%) also exhibited CFI values over .90 and those that did not were reasonably close to the criterion (range = .84 to .95). We could not test the W, RO, and RS factor invariance across relationships in this sample because of the computational difficulty presented by the large number of parameters estimated by our model. Kline (2005) recommends visual inspection of factor loadings as a first step to assessing factor invariance, and each of the estimated parameters appeared reasonably similar across the 4 relationships. Finally, we examined the intercorrelations among the subscales and among the second-order factors. The median intercorrelation for the second-order factors (for W, $r = .11$; for RO, $r = .01$; for RS, $r = .01$) was smaller for each of the CCRT components compared to the median intercorrelation for the subscales (for W, $r = .21$; for RO, $r = .06$; for RS, $r = .04$).² All together, this model appears to be a possible way to adequately explain the relations in the data.

To assess the internal consistency of the CRQ subscales and second-order factors, we computed Cronbach's alpha coefficients for each scale using scores for individual relationships. Alpha coefficients were calculated for the full sample. Median alpha coefficients for each scale across relationships are shown in the right column of Table 2. The majority of subscales (94%) and second-order factors (88%) exhibited at least acceptable internal consistency ($\alpha > .70$; Shrout, 1995). Item-total correlations within each subscale and second-order factor were all above .40 except one item each on the Be Submissive and Is Submissive scales.

Rigidity of Relationship Themes

We used a profile correlation approach to estimate the interpersonal rigidity of each participant. Rigidity was calculated separately for each CCRT component, resulting in a W, RO, and RS rigidity score for each participant. First, we computed a correlation coefficient between the CRQ subscale profiles for each pair of an individual's relationships (partner-mother; partner-father, etc.).³ Next, we averaged the profile correlations (after Fisher's z transformations) to create a single rigidity coefficient for each CCRT component. Averaged profile correlations for clients and control participants are displayed in Table 4. For all following analyses, z transformed rigidity scores were used to better satisfy normality assumptions.

We predicted that our estimates of rigidity (profile correlations) would be related to another estimate of rigidity (amplitude from the IIP structural summary). Rigidity, as measured by profile correlations, was not related to amplitude (for W, $r(272) = -.04$, ns ; for RO, $r(273) = -.07$, ns ; for RS, $r(273) = -.05$, ns).

We also hypothesized that interpersonal rigidity would not be associated with main type of interpersonal problem (displacement on the IIP) or with specific DSM-IV Axis I or Axis II diagnoses. None of the correlations between rigidity and displacement were significant (for W, $r(272) = .07$, ns ; for RO, $r(273) = -.02$, ns ; for RS, $r(273) = .09$, ns). To compare levels of rigidity among the DSM diagnostic categories, we conducted ANOVAs for diagnoses that

²For brevity, factor loadings and intercorrelations are not presented in this paper. They are available from the authors by request.

³We examined rigidity among the CRQ subscale scores, and not the second-order factors, because the former provided a more detailed description of interpersonal themes. Additionally, to estimate profile correlations, we required the added variance that the subscales (e.g., for W, 12 observations per relationship referent) offered relative to the second-order factors (e.g., for W, 5 observations per relationship referent).

had sample sizes of at least five clients. We excluded nonspecific (NOS) diagnoses because the symptoms associated with these diagnoses were unclear. Axis I and II disorders were analyzed separately. Rigidity for any CCRT component was not associated with Axis I diagnosis. W rigidity did distinguish among Axis II disorders ($F(3, 83) = 3.14, p < .03$); such that clients with Borderline Personality Disorder ($Mdn r = .66$ (range = .02 to .97)) exhibited less rigidity than did clients with Obsessive Compulsive Personality Disorder ($Mdn r = .81$ (range = .32 to .97); $t(82) = 3.01, p < .004, d = .66$). RO rigidity was not associated with specific Axis II diagnosis. RS rigidity distinguished among Axis II disorders ($F(3, 84) = 3.35, p < .02$); such that clients with Borderline Personality Disorder ($Mdn r = .50$ (range = -.16 to .87)) responded significantly less consistently than did those with Obsessive Compulsive Personality Disorder ($Mdn r = .67$ (range = .22 to .94); $t(83) = 2.98, p < .004, d = .65$). These differences in W and RS rigidity remained even after we controlled for levels of distress (IIP elevation and GAF scores).

To test for a relation between interpersonal rigidity and symptoms and functioning, we first performed two-sample t -tests for each CCRT component comparing the rigidity estimates for clients and control participants (see Table 4). Contrary to our hypothesis, clients exhibited significantly *less* rigidity than did control participants (for W, $t(338) = 2.33, p < .02$; for RO, $t(338) = 4.96, p < .0001$; for RS, $t(338) = 6.20, p < .0001$). IIP amplitude did not distinguish between the groups (see Table 4 for descriptive statistics; $t(269) = 1.06, ns$).

We then examined the correlation of rigidity estimates to measures of symptoms and functioning. For interpersonal distress, client and control participants' rigidity scores were correlated with their elevation scores on the IIP. For symptoms and functioning, clients' rigidity scores were correlated with their GAF and control participants' rigidity scores with their GSI scores. Zero-order correlations with each of the symptom and functioning measures are given in Table 5. Again, contrary to what we hypothesized, greater rigidity in Ws, ROs, and RSs was associated with *higher* GAF scores and *lower* IIP elevation scores in clients; suggesting that greater rigidity is associated with fewer symptoms and better interpersonal functioning. Greater rigidity in RSs was also related to *lower* GSI scores in control participants; again suggesting that greater rigidity is associated with less symptom distress. We also examined the relation with rigidity estimates from the IIP, the amplitude scores. Amplitude was related to higher IIP elevation and lower GAF scores, which would be in the predicted direction.

The CRQ measures both positive and negative interpersonal themes. The unexpected association between greater rigidity and less symptoms and impairment could be due to the valence of the interpersonal themes used in estimating rigidity. Specifically, greater well-being might be predicted by rigidity in positive wishes and behaviors, whereas greater symptoms and impairment might be associated with rigidity in negative interpersonal themes (cf. Locke, 2006; Locke & Christensen, 2007). To evaluate this alternative, we tested the unidimensionality of the rigidity construct we were measuring. We estimated each participant's rigidity scores (averaged profile correlations) separately for positive and negative Ws, ROs, and RSs⁴ and then correlated these rigidity scores (after z transformation). Significant correlations between positive and negative rigidity scores might suggest that the construct we were measuring is unidimensional and not dependent on the valence of the themes used to estimate it. Indeed, the correlations between positive and negative scores for all components were significant (for W, $r(322) = .12, p < .03$; for RO, $r(334) = .60, p < .0001$; for RS, $r(334) = .57, p < .0001$).⁵

⁴Valence of interpersonal themes was determined using the criteria of Weinryb, Barber, Foltz, Goransson, and Gustavsson (2000). Positively-valenced subscales were those that involved affiliation, positive emotional experiences, or promotion of one's own or others' autonomy, whereas negatively-valenced subscales involved distancing, negative emotions, and interference in one's own or other's autonomy. Subscales involving sexuality were excluded from either category due to their ambiguous valence across different relationship referents.

We also explored for curvilinear relations between rigidity and symptoms and functioning. We reran each analysis described above using both linear and quadratic terms for rigidity as predictors. Rigidity in clients' ROs and RSs were related to GAF scores in a positively accelerating fashion (for RO, $t(230) = 2.73, p < .007$; for RS, $t(230) = 2.14, p < .03$); such that as clients reported greater interpersonal rigidity, they also had increasingly fewer symptoms. No other significant curvilinear relations to symptoms and functioning were observed.

Effects of Extremeness in Interpersonal Themes

Extreme interpersonal patterns (e.g., wanting to be "merged" with another person or to submit totally to the will of another) may lead to unfulfillable wishes or inappropriately strong reactions in relationships and may cause the development of symptoms. A direct effect between extremeness and rigidity could then exist. Additionally, extremeness might be confounded with some estimates of rigidity (for discussions, see Gurtman & Balakrishnan, 1998; Pincus, 1994; Tracey, 2005). It is possible that extremeness might mediate any relation of rigidity on symptoms and functioning. Therefore, we tested the effect of extremeness in wishes and behaviors on the relation of rigidity and each of the symptom measures. Extremeness on the IIP is represented by the mean level of all types of interpersonal problems (i.e., elevation). Similarly, we calculated extremeness on the CRQ as the average level of Ws, ROs, and RSs for a participant across their relationships. Ws, ROs, and RSs were aggregated separately to produce three extremeness scores per patient. We first correlated these extremeness scores with symptoms (see "Extremeness" entries in columns labeled "Zero-Order" in Table 5). Greater W, RO, and RS extremeness were related to greater symptoms and impairments, although not all relations reached significance. We then used regression analyses to predict the symptoms and functioning measures from participants' rigidity and extremeness scores for each CCRT component. Columns labeled "First-Order" in Table 5 show the standardized regression coefficients for rigidity and extremeness. Overall, extremeness appeared to be a suppressor of rigidity; that is, the positive relation between rigidity and symptoms was enhanced when levels of Ws, ROs, RSs were controlled for in the analyses. However, extremeness partially mediated the relation between rigidity in ROs and GAF scores (i.e., the first-order correlation was only significant at a trend level); suggesting that extreme reactions from others were associated with greater levels of symptoms and impairment.

We also ran a similar analysis for amplitude using the extremeness index of the IIP structural summary, elevation. Zero- and first-order correlations for these variables are presented at the bottom of Table 5. Greater extremeness was directly correlated to greater symptoms and impairment. Additionally, extremeness fully mediated the relation between amplitude and symptoms.

Discussion

One of the objectives to this paper was to investigate the relation of rigidity in interpersonal relationships to symptoms and functioning. Contrary to what we expected and what many psychotherapists would have predicted, greater rigidity was related to lower symptom distress and higher interpersonal functioning. Furthermore, the effect appeared in this study to be quite robust as it was observed in both clients and control participants and using 3 different measures of symptoms and functioning.

⁵We reanalyzed the data predicting symptoms and functioning from rigidity scores for positive and negative interpersonal themes. For brevity, we do not report these analyses here but will provide them on request.

We might have not found positive relations among rigidity and symptoms and impairment because our method of profile correlation might have measured a different construct of rigidity than the one conceptualized by theorists. We operationalized rigidity as the *covariation of different* interpersonal themes *across* relationships. Covariation is repetition in the profile of interpersonal themes and may reflect an interpersonal “style” used more or less in different relationships (e.g., wanting to be trusted, in control, but not close in every relationship, but feeling so to a greater degree with one’s parents than with one’s peers). Having a particular style in relationships may be related to fewer symptoms and better functioning. Investigations using a profile correlation approach have tended to report a negative relation between rigidity and symptoms (Connolly et al., 2000; Cross, Gore, & Morris, 2003; Foltz et al., 1999; Locke, 2006; Locke & Christensen, 2007). Other methods of operationalizing rigidity may capture a different way of relating and may have a different association with symptoms and impairment. For instance, amplitude on the IIP was related to greater symptoms and impairment, and this relation was mediated by extremeness in interpersonal themes. Amplitude has often been defined as the overuse of a particular interpersonal theme relative to other types of interpersonal themes (e.g., wanting to be especially close to others but not dominant or distant). Our profile correlation approach may represent the use, but not necessarily the overuse, of a constellation of different wishes and behaviors across multiple relationships.

Additionally, because the CRQ contains both positive and negative interpersonal themes, it could be that the inclusion of positive interpersonal themes in our estimates of rigidity obscured any relation we might have otherwise observed between rigidity in negative themes and symptoms and impairment (cf. Locke, 2006; Locke & Christensen, 2007). Indeed, we observed that amplitude, which was calculated only for interpersonal problems, was related to greater symptoms and impairment. We were able to partially test this alternative explanation by examining the correlation between rigidity in positive and in negative interpersonal themes. They were strongly associated; suggesting that, at least with the CRQ, rigidity might be a unitary construct and rigidity in a wide repertoire of interpersonal themes, not just positive or negative, might be associated with fewer symptoms and better functioning.

Finally, measuring rigidity across relationships, as opposed to repetition within relationships, may have been another reason for our surprising results. We targeted repetition across relationships because many theorists seem to imply that this type of interpersonal rigidity leads to relationship problems (see Footnote 1). We also tried to be more selective than other researchers in sampling similar relationship episodes with several different referents (i.e., the episode when the relationship was at its worst point). However, repetition of interpersonal themes within a relationship (or within a few key relationships), and not necessary across all relationships, might be the type of rigidity related to poorer outcomes. In our study, IIP amplitude correlated with greater symptoms and impairment perhaps because amplitude might be more likely to capture within-relationship repetition than might the CRQ profile correlation method. The IIP asks participants to rate their interpersonal patterns globally, perhaps leading to responses about particularly salient or conflictual interactions with a single or a few individuals. The CRQ, on the other hand, requires participants to describe several relationships. This method might elicit more “ordinary” responses that are less immediately accessible to memory but that are a sign of well-being when they are consistent across relationships. Future studies might attempt to measure both within- and across-relationship repetition of interpersonal patterns to test how these types of rigidity might relate with symptoms and well-being.

Greater rigidity in central relationship patterns might make a person more predictable in their relationships. A stable and predictable individual may be more likeable than a less consistent individual (Epstein, 1979; Juijias & Horvath, 1991). Those with high interpersonal rigidity may then attain better quality relationships (Rempel, Holmes, & Zanna, 1985). This may occur

regardless of the valence of the person's interpersonal behaviors (cf. Rotter, 1980). For example, a person with negative wishes and behaviors but who is predictable may still have better relationships than less consistent individuals. In other words, interpersonal rigidity, whether for good or bad interpersonal themes, might be more desirable to others than might unpredictability.

Greater rigidity in interpersonal patterns may also be associated with a more integrated personality organization. People with a unified sense of themselves and their relationships to others may be more resilient to stressors and so evidence fewer symptoms or better functioning (Bowlby, 1969; Epstein, 1973; Rogers, 1951). There is some empirical support for this view aside from the evidence reported in this paper (e.g., Connolly et al., 2000; Cross, Gore, & Morris, 2003; Foltz et al., 1999; Locke, 2006; Locke & Christensen, 2007). For instance, low self-monitors, who tend to be very consistent in their relationships, are more likely to exhibit a secure attachment style (Gaines, Work, Johnson, Youn, & Lai, 2000) and report more satisfaction in their relationships (Leone & Hall, 2003) compared to high self-monitors, who tend to be inconsistent across their relationships.

Finally, because this finding is correlational, we cannot determine the causal direction of the association. It is possible that being more symptomatic or functioning poorly might cause people to feel or act inconsistently in their different relationships. Indeed Crits-Christoph and others (1994) suggested that when individuals are more symptomatic they are less able to present an organized picture of their relationships. Longitudinal or developmental research or mediation analyses might help to explain the direction of causality.

While rigidity discriminated between our clinical and comparison sample, it did not distinguish between different types of interpersonal problems and diagnostic categories except for Obsessive-Compulsive and Borderline Personality Disorders. This finding suggests that rigidity might be a general indicator of distress that might lie beneath different types of psychological problems and that only in extreme cases do we see its impact. Future investigations might examine how different interpersonal themes or contexts might cause rigidity to be expressed as different symptoms (or how different symptoms might each lead to decreased interpersonal rigidity).

We also explored whether a curvilinear relationship between interpersonal rigidity and symptoms and functioning since extremes in rigidity may be maladaptive. Only two of these analyses were significant and not in the expected direction. It is possible that our samples had a restriction of range that did not allow us to view the full relation of rigidity and symptoms and functioning. Based on visual inspection of the plots of rigidity and symptoms and functioning and on the variability of symptoms and functioning observed (e.g., several clients received no diagnosis and exhibited relatively good functioning), a restriction in range is not likely and a linear relation might best explain the data.

Several limitations of the current study should be noted. First, the clinical and comparison samples could be analyzed together on the IIP, but not on the GAF and BSI. A full sample in which all data could be analyzed simultaneously would allow a more powerful test of our hypothesis. Second, participants were asked to describe their relationships with the CRQ in a single sitting. This procedure might cause participants to report their relationships more similarly than they might under different instructions (e.g., spaced assessments) and thus artificially inflate our estimates of interpersonal rigidity. Alternatively, rating relationships successively might cause some participants to describe their relationships differently (e.g., due to a strong desire for uniqueness), thereby decreasing rigidity. Assessments using CCRT methodology under controlled settings generally tend to share this problem (e.g., Luborsky, 1998). Replication of this study using more naturalistic procedures (e.g., extracting and rating

the interpersonal themes in narratives told during therapy sessions) would help to ensure the results we observed are not simply due to the procedure we used. Third, the CRQ relies on participants' self-report. Although self-report of interpersonal patterns may have unique advantages to observer ratings (e.g., the respondent is a privileged observer to his or her own experience), self-report data may produce different results than might data obtained by trained judges. Furthermore, the anchors for the CRQ use wording that might imply to some participants that frequency judgments are to be made. We intended for these anchors to be used to judge the likelihood of the particular W, RO, or RS occurring in the episode, but participants could have interpreted the scale in a way that would cause them to think of multiple relationship episodes and thus artificially draw for greater rigidity. Additionally, while instructions were to rate each relationship for a single episode (the worst point), we cannot be sure that participants did not provide ratings for different episodes across the worst time period in their relationships. Replication using ratings of interpersonal themes by clinicians trained in the use of the measure could help determine whether there are differences in the relation of rigidity and symptoms due to method. Fourth, the CCRT method is one of many methods of operationalizing central relationship patterns. In practice, the CCRT often assesses interpersonal themes at an observable or surface level. Other methods attempt to assess interpersonal patterns at more inferential level (for reviews, see Barber & Crits-Christoph, 1993; Eells & Lombart, 2004). It may be profitable to explore what contribution other methods might bring to the investigation of interpersonal rigidity and symptoms. Finally, our estimates of rigidity depend on the assumption that the profiles of interpersonal themes reported for each relationship referent are stable over time and therefore can be covaried meaningfully with profiles from other relationships. We would to know the test-retest reliability of the CRQ in order to be more certain that we operationalized the concept of rigidity as intended.

Knowing that rigidity is related to greater well-being could influence the conceptualization of how clients change in psychotherapy. While it may be true that psychotherapy helps clients create understanding of their interpersonal patterns, modification of these patterns may occur through different mechanisms than originally proposed. Perhaps psychotherapy has its effects by promoting integration of disparate interpersonal themes or by helping clients maximize the most adaptive interpersonal wishes and behaviors in their repertoire. In fact, some types of interventions in therapy have the explicit goal of integration, like two-chair dialogue in process/experiential therapy (Elliott, Watson, Goldman, & Greenberg, 2004); alliance-based interventions in transference-focused psychotherapy (Levy et al., 2006), and many of the facilitative conditions in Rogers' Person-Centered Therapy (Rogers, 1951). On the other hand, psychotherapists could be performing interventions, perhaps unbeknownst to them, that promote rigidity. An in-depth examination of the process of interpersonal-focused therapies with special attention of these possible interventions would be interesting, as well as an investigation of how interpersonal patterns change over a course of psychotherapy.

This study also had the dual purpose of investigating the psychometric properties of the revised CRQ. A hierarchical model of CRQ subscale and second-order factor organization fit the data adequately in confirmatory factor analyses. The majority of both CRQ subscales and second-order factors exhibited moderate to high internal consistency. Overall, the CRQ may be a useful measure for future research on questions of rigidity and interpersonal patterns. Additionally, the CRQ may have applications in counseling and therapy. First, psychodynamic and interpersonal therapists need to quickly identify clients' problematic interaction styles at the beginning of therapy (Book, 1998; Luborsky, 1984; Strupp & Binder, 1984; Weissman, Markowitz, & Klerman, 2000). Using the CRQ to assess central relationship patterns might allow clients and therapists to spend more time focusing on changing clients' relationships for the better. Second, in completing the CRQ, clients can begin to think about what they want from others and how they perceive themselves and others react to theses wishes. If completed

on a regular basis, the CRQ might be a useful instrument for clients to monitor their ways of relating and any changes they experience as a result of therapy.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Primary DSM-IV Axis I and Axis II Diagnoses for the Client Sample.

Axis I		Axis II	
Diagnosis	<i>n</i> (%)	Diagnosis	<i>n</i> (%)
Major Depressive Disorder	103 (41)	Paranoid PD	5 (2)
Dysthymic Disorder	7 (3)	Schizoid PD	1 (1)
Depressive Disorder NOS	5 (2)	Schizotypal PD	1 (1)
Bipolar Disorder	5 (2)	Antisocial PD	2 (1)
Panic Disorder (with or without Agoraphobia)	40 (16)	Borderline PD	35 (14)
Generalized Anxiety Disorder	34 (14)	Narcissistic PD	2 (1)
Obsessive Compulsive Disorder	2 (1)	Avoidant PD	20 (8)
Specific Phobia	3 (1)	Dependent PD	3 (1)
Social Phobia	6 (2)	Obsessive Compulsive PD	26 (10)
Posttraumatic Stress Disorder	5 (2)	PD NOS	20 (8)
Anxiety Disorder NOS	4 (2)		
Somatization Disorders	1 (1)		
Alcohol Abuse/Dependence	11 (4)		
Bulimia Nervosa	1 (1)		
Other	1 (1)		
No Diagnosis on This Axis	20 (8)	No Diagnosis on This Axis	135 (54)

Descriptive Statistics and Median Cronbach's α Coefficients for CRQ Subscales and Second-Order Factors for the Full Sample.

Table 2

Second-Order Factor	Subscale	N items	Relationship Referent (M (SD))				α
			Partner	Mother	Father	Best Friend	
Be Hurtful		9	Wish				
			2.43 (1.05)	2.39 (1.06)	2.35 (1.15)	1.95 (0.83)	.87
	Be Distant	3	2.73 (1.42)	3.31 (1.62)	3.31 (1.66)	2.52 (1.20)	.83
	Be Domineering	3	2.46 (1.37)	1.67 (1.01)	1.68 (1.10)	1.74 (1.01)	.86
	Be Hostile	3	2.09 (1.11)	2.18 (1.28)	2.05 (1.30)	1.57 (0.85)	.75
Be Independent ^a	N/A	3	5.32 (1.28)	5.86 (1.20)	5.70 (1.36)	5.56 (1.38)	.82
Be Intimate		21	5.94 (1.01)	5.32 (1.34)	5.08 (1.50)	5.51 (1.12)	.95
	Be Close	3	5.87 (1.30)	5.04 (1.58)	4.63 (1.66)	5.55 (1.20)	.84
	Be Loved	3	6.28 (1.11)	5.63 (1.54)	5.40 (1.65)	5.31 (1.40)	.84
	Be Recognized	4	5.99 (1.04)	5.49 (1.38)	5.34 (1.55)	5.50 (1.21)	.85
	Be Secure	3	5.59 (1.73)	4.90 (2.07)	4.77 (2.19)	4.97 (1.91)	.93
Be Sexual ^a	Be Supportive	5	5.97 (1.17)	5.66 (1.40)	5.31 (1.69)	5.93 (1.09)	.90
	Be Trusted	3	5.94 (1.35)	5.19 (1.66)	5.03 (1.85)	5.82 (1.30)	.81
	N/A	2	5.62 (1.61)	1.05 (0.39)	1.05 (0.31)	1.16 (0.65)	.84
	N/A	3	2.36 (1.06)	1.90 (0.91)	1.95 (1.03)	1.84 (0.78)	.58
		Response of Other					
Is Hurtful		11	3.06 (1.34)	2.98 (1.26)	2.99 (1.31)	2.12 (0.83)	.88
	Is Distant	3	3.79 (1.60)	3.39 (1.60)	4.05 (1.71)	2.79 (1.21)	.81
	Is Domineering	3	2.86 (1.58)	3.01 (1.66)	2.81 (1.69)	1.81 (0.99)	.88
	Is Hostile	2	2.96 (1.85)	2.68 (1.76)	2.67 (1.89)	1.84 (1.09)	.88
	Is Uncontrollable	3	2.64 (1.63)	2.86 (1.67)	2.42 (1.52)	2.03 (1.22)	.87
Is Independent ^a	N/A	3	5.53 (1.31)	5.21 (1.51)	5.75 (1.38)	5.67 (1.12)	.84
Is Loving ^a	N/A	3	5.01 (1.62)	5.14 (1.77)	4.51 (1.80)	5.25 (1.24)	.88
Is Sexual ^a	N/A	2	4.81 (1.85)	1.06 (0.50)	1.19 (0.88)	1.19 (0.75)	.97
Is Submissive ^a	N/A	3	3.18 (1.19)	2.79 (1.22)	2.37 (1.18)	2.73 (1.03)	.61
Am Autonomous		Response of Self					
		5	4.80 (1.27)	5.10 (1.27)	5.00 (1.38)	5.37 (1.14)	.85
	Am Independent	3	4.97 (1.37)	5.25 (1.33)	5.13 (1.46)	5.56 (1.19)	.85

Second-Order Factor	Subscale	N items	Relationship Referent (<i>M (SD)</i>)				α
			Partner	Mother	Father	Best Friend	
Am Avoidant	Am Successful	2	4.63 (1.53)	4.95 (1.57)	4.87 (1.66)	5.18 (1.41)	.84
		12	3.49 (1.28)	3.04 (1.38)	3.19 (1.40)	2.34 (0.96)	.91
	Am Ambivalent	2	4.35 (1.84)	3.13 (1.89)	3.44 (1.96)	2.63 (1.48)	.85
	Am Anxious	2	3.82 (1.69)	3.12 (1.78)	3.28 (1.81)	2.30 (1.31)	.74
	Am Disliked	2	3.16 (1.72)	2.72 (1.84)	2.75 (1.83)	2.01 (1.21)	.82
Am Domineering ^d	Am Distant	3	3.51 (1.44)	3.79 (1.59)	4.10 (1.58)	2.97 (1.22)	.78
	Am Submissive	3	2.59 (1.39)	2.45 (1.42)	2.39 (1.45)	1.77 (0.89)	.84
	N/A	3	2.30 (1.20)	1.70 (0.96)	1.46 (0.76)	1.61 (0.81)	.85
	Am Intimate	9	4.88 (1.14)	4.57 (1.45)	4.16 (1.49)	5.36 (1.06)	.93
	Am Close	3	4.72 (1.40)	4.06 (1.64)	3.51 (1.54)	5.18 (1.20)	.87
Am Non-confrontational ^d	Am Supportive	3	5.39 (1.12)	5.02 (1.44)	4.63 (1.56)	5.51 (1.12)	.78
	Am Valued	3	4.54 (1.61)	4.63 (1.84)	4.33 (1.86)	5.39 (1.27)	.92
	N/A	3	4.23 (1.51)	4.60 (1.51)	4.67 (1.62)	4.05 (1.60)	.89
	Am Sexual ^d	2	4.73 (1.78)	1.06 (0.48)	1.06 (0.42)	1.13 (0.62)	.95

Note. Alpha coefficients are the median for all relationship referents.

^d Second-order factors that are also subscales.

Table 3
Fit Statistics for Confirmatory Factor Analyses of CRQ Subscale and Second-Order Factor Models for the Full Sample.

Relationship Referent (N)	Wish			Response of Other				Response of Self				
	χ^2 test	df	RMSEA	CFI	χ^2 test	df	RMSEA	CFI	χ^2 test	df	RMSEA	CFI
Romantic Partner (329)	1733.76	646	.07	.86	615.73	195	.08	.91	1690.27	502	.09	.84
Mother (334)	1633.66	646	.07	.89	587.67	195	.08	.91	1357.94	502	.07	.91
Father (324)	1654.39	646	.07	.89	473.75	195	.07	.94	1489.71	502	.08	.88
Best Friend (331)	1535.92	646	.07	.89	356.13	195	.05	.95	1204.96	502	.07	.91

Note. RMSEA = root mean square error of approximation. CFI = comparative fit index.

Table 4

Descriptive Statistics for CRQ Rigidity Estimates, IIP Structural Summary, and Symptom Measures for Client and Student Samples.

	Clients (<i>N</i> = 250)	Students (<i>N</i> = 90)
CRQ Rigidity (<i>Mdn r</i> (range))		
W	.78 (.02 to .97)	.81 (.24 to .98)
RO	.56 (-.30 to .94)	.73 (.24 to .95)
RS	.60 (-.16 to .97)	.77 (-.05 to .97)
IIP Structural Summary		
Elevation (<i>M</i> (<i>SD</i>))	0.83 (0.88)	0.38 (0.65)
Displacement (<i>Mdn</i>)	248°	228°
Amplitude (<i>M</i> (<i>SD</i>))	0.94 (0.57)	0.81 (0.54)
Symptoms (<i>M</i> (<i>SD</i>))		
GAF	56.89 (10.51)	
GSI		0.64 (0.40)

Note. CRQ = Central Relationship Questionnaire. W = Wish. RO = Response of Other. RS = Response of Self. IIP = Inventory of Interpersonal Problems. GAF = Global Assessment of Functioning Scale. GSI = Global Symptom Index.

Table 5
Correlations of Rigidity and Extremeness Estimates to Symptoms and Functioning for Client and Student Samples.

Estimate	IIP Elevation		GAF		GSI	
	Zero-order	First-order	Zero-order	First-order	Zero-order	First-order
W						
Rigidity	-.22***	-.34***	.24***	.31***	-.06	-.23*
Extremeness	.27***	.38***	-.09	-.19**	.24*	.35**
RO						
Rigidity	-.32***	-.15*	.27***	.18*	-.21*	-.14*
Extremeness	.40***	.34***	-.26***	-.27*	.23*	.17
RS						
Rigidity	-.29***	-.27***	.34***	.35***	-.23*	-.26*
Extremeness	.17**	.15*	-.04	.01	.17	.21*
IIP						
Amplitude	.44***	-	-.26***	-.07	.06	.21
Elevation	-	-	-.45***	-.41***	.67***	.75***

Note. GAF = Global Assessment of Functioning Scale. IIP = Inventory of Interpersonal Problems. Problems. GSI = Global Symptom Index. W = Wish. RO = Response of Other. RS = Response of Self. GAF scores were obtained from clients; IIP scores from clients and students; and GSI scores from students. First-order correlations are effect size r statistics controlling for the other entry under that row heading (e.g., RO rigidity and RO extremeness).

* $p < .05$.

** $p < .01$.

*** $p < .001$.