The Central Relationship Questionnaire: Initial Report

Jacques P. Barber and Carol Foltz University of Pennsylvania Medical School Robert M. Weinryb Karolinska Institute and University of Pennsylvania Medical School

This study presents an initial evaluation of the psychometric properties of the Central Relationship Questionnaire (CRQ), a measure of central relationship patterns. These patterns refer to people's characteristic ways of relating to significant others in terms of their wishes, their perceptions of others' responses to them, and their own responses to both of these. The self-report CRQ is derived from L. Luborsky's (1977) clinician-rated Core Conflictual Relationship Theme. Overall, the results indicated that the CRQ components could be differentiated into meaningful subscales. These subscales were internally consistent, demonstrated significant stability over a year, and evidenced preliminary convergent and divergent validity with measures of interpersonal problems and symptomatology. It is concluded on the basis of these promising results that the CRQ merits further empirical development. Specific suggestions for accomplishing this are presented.

Central interpersonal patterns refer to characteristic ways of relating to others and are thought to be the product of highly ingrained patterns or schemas of relationships with important others. These relational patterns are presumed to be initially constructed from emotionally laden interactions with parental figures in the earliest years of life that are then carried forward into subsequent relationships. According to psychodynamic theory, the patterns are compromise formations (Brenner, 1982) of conflicts between incompatible wishes (impulses) or between unacceptable wishes and prohibitions. A primary aim of dynamic psychotherapy is to address maladaptive interpersonal patterns across the client's different relationships as a means of achieving insight and eliciting therapeutic change (e.g., Davanloo, 1980; Luborsky, 1984; Malan, 1976a, 1976b; Strupp & Binder, 1984).

The clinical utility of theory-driven measures of central relationship patterns has long been recognized by researchers as a central component of dynamic formulation, as an important focus of interpretations, and as a theoretically relevant measure of outcome and change. Although early attempts to assess these theoretical constructs failed to evidence sufficient agreement among clinicians (Seitz, 1966), recently developed measures of central relationship patterns have been successful in obtaining adequate levels of interrater reliability (e.g., Crits-Christoph et al., 1988; for a review see Barber & Crits-Christoph, 1993). Among the most psychometrically advanced clinician-based methods for measuring central relationship patterns are the Core Conflictual Relationship Theme (CCRT; Luborsky, 1977; Luborsky & Crits-Christoph, 1990), the Consensual Response Formulation (L. M. Horowitz & Rosenberg, 1994; L. M. Horowitz, Rosenberg, Ureño, Kalehzan, & O'Halloran, 1989), the Role-Relationship Models Formulations (M. J. Horowitz, 1989; M. J. Horowitz & Eells, 1993), the Plan Formulation Method (Curtis, Silberschatz, Sampson, & Weiss, 1994; Weiss, Sampson, & the Mount Zion Psychotherapy Research Group, 1986), and the Idiographic Conflict Formulation (Perry, Augusto, & Cooper, 1989). Because these measures require clinician ratings, they are extremely time consuming and expensive to use. The labor-intensive and costly nature of such methods make their use in large-sample research very difficult.

Among these clinician-rated methods, the CCRT has amassed a relatively large amount of data supporting its validity (e.g., Luborsky, Barber, & Crits-Christoph, 1990; Luborsky & Crits-Christoph, 1990). Luborsky's (1977) conceptualization of the CCRT was influenced by Freud's structural theories of personality and psychopathology. According to Luborsky (1977), central interpersonal patterns as assessed by the CCRT have three components: a person's wish, desire, or intention (Wish); a fantasized, anticipated, or actual response from other (RO), and a fantasized, anticipated, or actual response from the person in the form of thought, emotion, behavior, or symptom (Response of Self, or RS). Other theorists, such as Malan (1976a), Murray (1938), Perry et al. (1989), and Strupp and Binder (1984), have used different terms, but the CCRT components are consistent with those tapped by similar measures (see Barber & Crits-Christoph, 1993; Luborsky, Popp, & Barber, 1994).

Jacques P. Barber and Carol Foltz, Center for Psychotherapy Research, Department of Psychiatry, University of Pennsylvania Medical School; Robert M. Weinryb, Department of Psychotherapy, Karolinska Institute, Stockholm, Sweden, and Center for Psychotherapy Research, Department of Psychiatry, University of Pennsylvania Medical School.

This study was supported in part by Grant RO1 MH-49902. We gratefully acknowledge the contributions of Paul Crits-Christoph, Jennifer Q. Morse, and Joe Smailis to the development of the Central Relationship Questionnaire and to the present study. We also thank Karla Moras for her supervision of the diagnostic clinicians.

Correspondence concerning this article should be addressed to Jacques P. Barber, Center for Psychotherapy Research, University of Pennsylvania Medical School, 3600 Market Street, 7th Floor, Room 704, Philadelphia, Pennsylvania 19104-2648. Electronic mail may be sent to barberj@landru.cpr.upenn.edu.

The CCRT is based on narratives clients tell about their interactions with others during counseling sessions. Clinical raters first identify the most salient Wish, RO, and RS in each relationship narrative, and the most frequent Wish, RO, and RS across a set of narratives constitute a client's CCRT. These CCRTs are tailor-made or idiosyncratic to the specific material expressed in each client's narratives and therefore can be part of a dynamic formulation used by a clinician to understand the client's maladaptive interpersonal pattern. For research purposes, this tailor-made system has been supplemented by standard categories: the Wishes, ROs, and RSs that were most frequently rated by experienced judges (Barber, Crits-Christoph, & Luborsky, 1990). The standard categories consist of 35 Wishes (e.g., "wish to be close," "wish to be loved," "wish to hurt other"), 30 ROs (e.g., "other is understanding," "other is rejecting," "other is controlling"), and 30 RSs ("I am respected," "I am helpless," "I am not open"). Barber et al. (1990) presented a cluster analysis of these standard categories, which resulted in eight standard category clusters for each CCRT component.

Using the standard categories, Eckert, Luborsky, Barber, and Crits-Christoph (1990) described the typical CCRT of a sample of psychotherapy clients who had received a diagnosis of major depression on the basis of the revised third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R; American Psychiatric Association, 1987). They reported that the most common CCRT categories were "to be close" and "to be loved" from the Wish component, "rejects me" from the RO component, and "depressed" and "helpless" from the RS component. They also found that higher levels of self-reported depression were related to greater expectations of rejection from others. The results of another study indicated that interpretations that were more accurate relative to independently formulated CCRTs predicted better outcome in dynamic psychotherapy (Crits-Christoph, Cooper, & Luborsky, 1990).

Because of its widespread use and acceptance, the CCRT served as the basis for the construction of a self-report measure of central relationship patterns, the Central Relationship Questionnaire (CRQ). The initial version of the CRQ, based in part on the CCRT standard categories, consists of eight different Wish subscales (Be Supportive, Other Feel Good, Be in Conflict, Be Loved, Be Recognized, Be Trusted, Be Independent, Be Sexual), six RO subscales (Hurts Me, Loves Me, Is Independent, Controls Me, Is Out of Control, Is Sexual), and eight RS subscales (Feel Valued, Care for Other, Feel Anxious, Feel Disliked, Am Successful, Am Independent, Avoid Conflict, Am Sexual). All the CCRT standard categories were included as items in initial pilot work, but some of them were either modified or lost as the CRQ underwent construction. The CRQ is meant to be completed for a specific relationship at a time.

The purpose of the present investigation was fourfold: 1. To determine the structure of each CRQ component (Wishes, ROs, and RSs) by means of a factor analysis.

2. To evaluate the internal consistency of the subscales produced by factor analysis.

3. To determine the test-retest reliability of the CRQ. Given that central relationship patterns are hypothesized to

be characterological (i.e., slow to change), test-retest reliability should be substantial.

4. To test the CRQ's convergent and divergent validity by examining its association with measures of interpersonal problems and psychiatric symptomatology as well as by comparing the CRQ responses of college students with those of individuals who met diagnostic criteria of the DSM-III-R for psychiatric disorders.

As a means of evaluating the CRQ's convergent and divergent validity, we correlated the CRO with Alden, Wiggins, and Pincus's (1990) circumplex version of the Inventory of Interpersonal Problems (IIP; L. M. Horowitz, Rosenberg, Baer, Ureño, & Vilaseñor, 1988), which measures the presence and severity of various types of perceived interpersonal problems (specific scales of the IIP are Domineering, Vindictive, Cold, Socially Avoidant, Nonassertive, Exploitable, Overly Nurturant, and Intrusive). We used the IIP in our study because both the CRQ and the IIP assess interpersonal styles or patterns of relating to others. Although globally similar in the construct they are capturing, it is important to note that these two measures are not identical. Unlike the IIP, which assesses the severity and type of interpersonal problems people perceive themselves as having, the CRQ examines individuals' wishes, what they expect from others, and their own subsequent reactions; thus, the two are not necessarily strongly correlated. Another reason why these two measures should correlate only moderately rather than strongly is that the IIP requests individuals to judge whether a problem has been troubling to them in any of their significant relationships, whereas the CRQ is rated for a specific relationship. We broadly predicted that despite these differences, certain CRO subscales should converge and diverge moderately with IIP scales when the content of the two measures is similar or antithetical, respectively. Specific predictions for Wishes, ROs, and RSs are presented in turn.

Overall, we expected the Wish subscales to evidence minimal association with the IIP scales, because what one wishes for may or may not be seen as problematic depending on, for example, whether one receives what was wished. The only exception to this general premise involves wishes that are relatively unique to certain interpersonal styles from the IIP. Specifically, the Wish subscale To Be in Conflict should correlate positively with the IIP's Domineering and Vindictive scales (both of which entail aggressive and revengeful interpersonal styles; Alden et al., 1990) and negatively with the IIP's Nonassertive and Exploitable scales (i.e., problems of submission and difficulty expressing anger, respectively). Also, the Wish subscale To Be Supportive should be negatively associated with both the IIP's Vindictive and Cold scales (both of which capture an inability to care for others) and positively related to the Overly Nurturant scale.

We expected the RO subscales Hurts Me and Loves Me to correlate positively and negatively, respectively, with an individual's average IIP score (an index of overall severity of interpersonal difficulty). These hypotheses are based on the clinical intuition that individuals with more interpersonal problems, regardless of kind, have a tendency to perceive others as hurtful and less loving. At the individual scale level, we predicted that the RO subscale Controls Me should correlate positively with the IIP's Nonassertive and Exploitable scales.

Regarding the RS subscales, we predicted that the average IIP score would correlate negatively with the positively themed RS subscales of Feel Valued, Am Successful, and Am Independent and positively with the negatively themed RS subscales of Feel Anxious and Feel Disliked. At the individual scale level, the RS subscale Care for Other should be negatively associated with the IIP's Vindictive and Cold scales and positively associated with the Overly Nurturant scale. Furthermore, the RS subscale Avoid Conflict should correlate positively with the IIP's Nonassertive and Exploitable scales. Because negatively themed RSs reflect selfperceived distress, certain RS subscales were also expected to converge with self-reports of psychiatric symptomatology. Specifically, the subscale Feel Anxious should correlate positively with self-reported anxiety, neuroticism, general psychiatric symptomatology, and depression. In addition, the subscale Feel Disliked should be positively associated with psychiatric severity, because an individual's sense of self-worth tends to decline as psychiatric problems worsen.

A second means of addressing the CRO's divergent validity involves contrasting the responses of participants who met DSM-III-R diagnostic criteria for Axis I or II disorders with those from a group of students. Although no diagnostic information was gathered on the student sample, it seems plausible that, as a group, students would be more functional and better adjusted than individuals who requested a psychiatric evaluation, received one or more psychiatric diagnoses, and often sought out psychological treatment. The diagnostic group in the present study was very heterogeneous; therefore, predictions were limited to CRQ subscales that typify most psychiatric diagnoses rather than particular diagnoses (e.g., the Wish subscale To Be in Conflict should characterize only a small subset of diagnoses and so was not included). In light of this qualification, we proposed that when students are compared with individuals who met DSM-III-R diagnostic criteria for psychiatric disorders, the students will score significantly higher on Wishes, ROs, and RSs that convey positive themes (e.g., feel loved) and lower on the subscales that entail negative themes (e.g., wish to harm other).

Method

Instrument Development

Initial Item and Subscale Development

The development of the self-report version of the CCRT method used empirical means to construct a set of items that composed a number of subscales. Initial items were based in part on the CCRT's standard categories (Barber et al., 1990) and supplemented by categories obtained from a comprehensive review of the personality assessment literature. Research assistants and clinicians generated items that were synonyms of the aforementioned categories, and then items that were judged to be clearly representative (4 or 5 on a 5-point scale) by at least three of the four different judges were retained. This process was reiterated three times until each category possessed at least 5 representative items, resulting in 127 Wish items, 113 RO items, and 120 RS items. These 355 items were administered to 197 college students, and internal consistency of

the subscales for each category was assessed. Items which correlated less than .4 with their total subscales were deleted. The entire procedure of generating items and checking their internal consistency and item-total correlation was repeated with three subsequent samples using subsequent versions of the CRQ until internally consistent subscales were achieved (these pilot studies included 57, 66, and 44 participants who rated a much larger number of items of 935, 782, and 980, respectively, to identify items with better psychometric properties). This pool of reliable subscales was then reduced by merging subscales that correlated above .6 with each other and retaining items only if they evidenced both high item-total correlations (above .4) within their subscales and low correlations with other subscales. The current version of the CRQ was formed primarily from items belonging to the most reliable subscales. In addition, 14 new items were also added to create one new subscale for each CRQ component.

Respondents were instructed to focus specifically on a romantic relationship when they rated the items. Although the self-report version can potentially target any relationship, romantic partner was selected because this relationship is perhaps the most significant relationship for adults. That is, for most adults this relationship elicits intense affect and often the most dysfunctional interpersonal patterns. Romantic partners were defined as people with whom the participants were emotionally and sexually involved with for at least 3 months during the last 3 years. Participants were asked to describe a previous relationship if they were not currently involved in a romantic relationship.

During pilot work, we experimented with the affective tone of the item ratings, asking participants to either describe what their romantic relationships were typically like or to rate their relationships at their worst or their best. In the current study, we asked participants to describe this relationship when it was at its worst. Worst ratings were preferred over typical or best ones in order to be consistent with the negative affective tone often present in therapy sessions from which CCRTs are derived and that dominates clinician-rated CCRTs (Eckert et al., 1990). This approach also follows the precedent of Talley, Strupp, and Morey (1990), who limited their analyses of the Intrex questionnaire of the Structural Analysis of Social Behavior method (Benjamin, 1977, 1988) to worst ratings after finding that these responses possessed greater variability than best ratings. We too have observed greater variability in worst ratings relative to best ratings in one pilot study of the CRQ, in which participants were asked to provide both ratings. We have also found that requesting participants to describe what their relationships were "typically" like resulted in characterizations of central relationship patterns as primarily loving, with little endorsement of relationship dissatisfaction. To make it easier (more socially acceptable) to endorse negative items (and increase the reliability of negatively themed subscales), only worst ratings were used in the present study.

Central Relationship Questionnaire

The initial version of the CRQ finalized from the pilot studies consisted of 65 Wish items, 51 RO items, and 64 RS items. These items corresponded to 8 Wish subscales (To Be Supportive, Other Feel Good, To Be in Conflict, To Be Loved, To Be Recognized, To Be Trusted, To Be Independent, To Be Sexual), 6 RO subscales (Hurts Me, Loves Me, Is Independent, Controls Me, Is Out of Control, Is Sexual), and 8 RS subscales (Feel Valued, Care for Other, Feel Anxious, Feel Disliked, Am Successful, Am Independent, Avoid Conflict, Am Sexual). (Note that these subscales are the same as those outlined previously.) Each item was rated on a 7-point scale ranging from 1 (*never true or typical of me*) to 7 (*always true or typical of me*). Thus, higher scores reflected a

greater presence of a particular Wish, RO, or RS. Participants were requested to complete the CRQ in reference to their romantic partner and to rate this relationship when it is at its worst. Ratings were first made for participants' wishes or desires toward their romantic partner (Wishes), then for their expectations of how their romantic partner would respond to these wishes (ROs), and finally for their own responses to their romantic partner's responses (RSs). Items included "wish to be affectionate toward other" and "wish to be trusted" (Wish component), "other hurts me" and "other is emotionally close to me" (RO component), and "I feel abandoned" and "I feel accepted" (RS component). In addition, 3 of the Wish items, 3 of the RO items, and 3 of the RS items were written twice in the questionnaire as a way to check for invalid or careless responding.

Instrument Validation

Participants

Three samples were used to evaluate the reliability and validity of the initial version of the CRQ.

Student sample. Participants were 315 undergraduates (212 women and 103 men) from one suburban and three urban universities located in the northeastern United States. Students' ages ranged from 17 to 47 years (M = 20.13, SD = 3.19). Two hundred and nine students were European American, 25 were African American, 53 were Asian American, 7 were Hispanic American, 15 were of other ethnicities, and 6 did not report their ethnicity.

Diagnostic sample. Participants were the first 96 individuals (33 men and 63 women) who responded to advertisements in the local community and in several clinics for an assessment study and who met diagnostic criteria for any known psychiatric disorder. All individuals in this sample received at least one psychiatric diagnosis by an experienced clinician using a structural clinical interview for the DSM-III-R (Structured Clinical Interview, Axis I and II [SCID I and II]; Spitzer, Williams, Gibbon, & First, 1990a, 1990b). Participants ranged in age from 19 to 66 years (M = 30.77, SD = 8.72). Seventy-seven participants were European American, 14 were African American, 2 were Asian American, and 3 were Hispanic American.

Approximately 42% received a diagnosis of anxiety: 6.3% panic disorder with agoraphobia, 9.4% panic disorder without agoraphobia, 3.1% agoraphobia without panic disorder, 11.5% social phobia, 10.4% simple phobia, 2.1% obsessive-compulsive disorder, 1% posttraumatic stress, 4.2% generalized anxiety disorder, 7.3% anxiety disorder not otherwise specified (NOS; these percentages do not add up to 42% because some participants received a diagnosis for more than one type of anxiety disorder). Approximately 71% received a diagnosis of depression: 1% bipolar mixed, 4.2% bipolar NOS, 25% major depression single episode, 30.2% major depression recurrent, 16.7% dysthymia, 6.3% depressive disorder NOS (these percentages do not add up to 71% because some participants received a diagnosis for more than one type of depression disorder). Thirty-six percent of the sample received diagnoses of both anxiety and depression. Forty-two percent of the sample received a diagnosis of at least one personality disorder. More specifically, 8.3% were classified as avoidant, 2.1% dependent, 6.3% obsessive-compulsive, 4.2% self-defeating, 4.2% paranoid, 2.1% schizotypal, 1% borderline, 2.1% antisocial, and 29,2% NOS (again, these percentages do not add up to 42% because some participants received a diagnosis for more than one type of personality disorder). No one was diagnosed with schizoid, histrionic, narcissistic, sadistic, or passive-aggressive personality disorders. Of this particular sample, 77% were already in treatment at the time of the study.

Retest sample. Participants included 54 students and staff (30 women and 24 men) from an urban university located in the northeastern United States. Participants' ages ranged from 19 to 37 years (M = 25.28, SD = 4.14). Forty-three participants were European American, 2 were African American, 6 were Asian American, 2 were Hispanic American, and 1 had a different ethnic background. Thirty-three of the participants were students (of these, 20 were graduate students and 13 were undergraduates).

Measures

Inventory of Interpersonal Problems (L. M. Horowitz et al., 1988). The original 127-item IIP is a self-report questionnaire that assesses the severity and type of interpersonal difficulties experienced by an individual. There are two types of items: those relating to interpersonal behaviors that are "hard for you to do" (e.g., "it is hard for me to be self-confident when I am with other people") and to interpersonal behaviors that "you do too much" (e.g., "I open up to people too much"). On a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely), individuals rate how distressing these problems are for them in their relationships with others; higher scores reflect more interpersonal difficulties. The IIP was scored according to the system developed by Alden et al. (1990), which is based on a circumplex model of interpersonal behavior and uses 64 of the original 127 items. This circumplex scoring system results in eight octant scores that define eight different patterns of interpersonal tendencies along the interpersonal circumplex. These interpersonal tendencies compose the Domineering, Vindictive, Cold, Socially Avoidant, Nonassertive, Overly Nurturant, Exploitable, and Intrusive scales of the IIP. In addition, the average score of all items was calculated in order to index a person's overall severity of interpersonal distress. L. M. Horowitz et al. (1988) reported that test-retest reliability across a 10-week interval ranged from .80 to .90, and the total IIP score correlated .64 with general psychiatric symptoms from the Symptom Checklist-90-Revised (SCL-90-R). Alden et al. reported acceptable structural properties and internal consistency of the eight scales.

Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erhaugh, 1961). The BDI is a 21-item self-report measure of depression. It is a widely used and reliable measure of depressive symptoms (for a review see Beck, Steer, & Garbin, 1988).

Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988). The BAI is a 21-item self-report measure of anxiety with acceptable psychometric properties.

Symptom Checklist-90—Revised (Derogatis, 1977). The SCL-90-R assesses different types of psychiatric symptoms (e.g., obsessive-compulsive, interpersonal sensitivity), and the global severity index from the checklist indicates an individual's overall level of psychiatric symptoms. Acceptable psychometric properties were reported by Derogatis.

NEO-Five Factor Inventory (NEO-FFI; Costa & McCrae, 1991). The NEO-FFI is a short version of the revised NEO Personality Inventory (Costa & McCrae, 1992), which reliably measures five major dimensions of normal personality, including neuroticism, extraversion, openness, agreeableness, and conscientiousness. High and low scores reflect extreme standing on each personality dimension.

Procedure

Four hundred and eleven participants completed the IIP as well as the CRQ for their romantic relationship when it was at its worst, taking between 40 to 60 min to finish the tasks. Of the 411 participants, 4 were gay men and 5 were lesbians; they were included in the analyses because we had no reason to believe that responses should differ in any systematic way on the basis of a person's sexual orientation. Indeed, the subscale scores for these 9 participants did not appear to differ from those of the heterosexual participants. The 96 participants in the diagnostic sample completed the SCID I and II as well as the BAI, BDI, SCL-90-R, and NEO-FFI (the order of all self-report measures, including the IIP, was randomized across participants). Fifty-four participants completed the CRQ for their romantic partner at two points in time, separated by at least a 1-year interim. Participants in the diagnostic and retest samples and 50 students were all monetarily compensated for the completion of their forms; the remaining 265 students received either course credit or volunteered.

Results

Factor Structure

Exploratory factor analysis was used to evaluate the structure of each CRQ component. Although certain subscales among the three components should indeed be correlated (the RO subscale Loves Me should correlate positively with the RS subscale Feel Valued), the three components are theoretically distinct and were therefore analyzed separately. In each analysis, ratings of all CRQ items made by 411 participants (all participants from the student and diagnostic samples) were subjected to a principalcomponents analysis, using a varimax rotation. A scree test (Cattell, 1966) of eigenvalues greater than 1 was used to identify the number of factors. An item was retained if it loaded at least .5 on a factor and loaded .15 higher on this designated factor than on any other factor. After meeting these criteria, an item could still be eliminated if it failed to correlate .4 or above with its total subscale.1

Wishes

The results of a scree test from a principal-components analysis of the 65 Wish items yielded seven interpretable factors, which together accounted for 62.1% of the variance in the ratings. The eigenvalues for these seven factors were 22.68, 6.16, 3.59, 2.66, 2.24, 1.69, and 1.34. Using the 49 items that met the inclusion criteria outlined above, the following seven Wish subscales were formed: To Be Supportive, To Be Independent, To Be in Conflict, To Be Recognized, To Be Trusted, To Be Sexual, and Not to Be Abandoned. There were two major digressions from the initial subscales. First, there was the loss of the 10-item Wish subscale To Be Loved. Some of these items constituted the new Wish subscale Not to Be Abandoned. Second, items from the initial subscales Other Feel Good and To Be Supportive loaded strongly on the same factor and thus were merged and called the To Be Supportive subscale.

Response From Other

The results of a scree test for the principal-components analysis of the 51 RO items produced seven interpretable factors, which in total accounted for 63.7% of the variance in the ratings. The eigenvalues for these seven factors were 15.49, 5.54, 4.29, 2.50, 1.92, 1.39, and 1.32. The final seven RO subscales were constructed from the 39 qualifying items and included the following: Hurts Me, Loves Me, Is Independent, Controls Me, Is Out of Control, Is Anxious, Is Sexual. These RO subscales duplicate the initial subscales from pilot work, with the exception of the new subscale, Is Anxious, which was created from 4 items originally belonging to the subscale Out of Control.

Response of Self

The scree test from the principal-components analysis of the 64 RS items suggested eight interpretable factors, which together accounted for 61.4% of the variance in the ratings. The eigenvalues for these eight factors were 20.85, 5.33, 2.96, 2.65, 2.49, 2.01, 1.65, and 1.32. From the 51 items that met the inclusion criteria, the following eight subscales were finalized: Feel Valued, Care for Other, Feel Anxious, Feel Disliked, Avoid Conflict, Am Independent, Am Sexual, Am Domineering. In terms of differences with past development, the subscale Am Successful was discarded and a new subscale, Am Domineering, was formed. Although this new subscale consisted of only 2 items originally belonging to the subscale Feel Disliked, it was added because of its presence in the CCRT standard categories and because both items loaded over .8 on their own factor and less than .17 on all other factors.

Intersubscale Correlations

Table 1 presents the intercorrelations among the subscales obtained from the factor analysis of each CRQ component. Subscales correlated with each other in predictable ways. That is, positively themed subscales displayed positive associations with each other, negatively themed subscales demonstrated negative associations with each other, and positively toned subscales were inversely related to negatively toned ones. The correlations between some subscales, however, were notably high; for example, note the correlations between the Wish subscales To Be Supportive and To Be Trusted, the RO subscales Is Out of Control and Is Anxious, the RO subscales Loves Me and Hurts Me (negatively), the RS subscales Feel Anxious and Feel Disliked, the RS subscales Feel Valued and Care for Other, and the RS subscales Feel Valued and Feel Anxious (negatively).

Reliability

Internal Consistency

Internal consistency of each subscale derived from the factor analyses was examined by computing both Cron-

¹The results of each factor analysis may be obtained from Jacques P. Barber.

Intercorrelations Amon	ig the CR	Q Subsca	les(N =	411)				
Subscale	1	2	3	4	5	6	7	8
			Wish					
1. To Be Supportive	—							
2. To Be Independent	.39***	_						
3. To Be in Conflict		15**						
4. To Be Recognized	.46***	.51***	10*					
5. To Be Trusted	.61***	.45***	36***	.48*** .44***				
To Be Sexual	.58***	.34***	25***	.44***	.37***			
7. Not to Be Abandoned	.43***	.28***	22***	.46***	.51***	.38***		
		Respo	nse from c	other				
1. Hurts Me								
2. Loves Me	62***							
Is Independent	18***	.25***						
4. Controls Me	.48***	35***	15**					
5. Is Out of Control	.56***	42***	33***	.48***	<u> </u>			
6. Is Anxious	.37***	26***	34***	.33***	.61***	_		
7. Is Sexual				12*		25***		
		Res	onse of se	elf				
1. Feel Valued								
2. Care for Other	.73***	_						
3. Feel Anxious	70***	52***						
4. Feel Disliked	59***	52***	.66***					
5. Avoid Conflict	.03	.16**	.07	.01				
6. Am Independent	39***	25***	- 47***	38***	16**			
7. Am Sexual	.48***	.56***	36***	34***	.05	.28***		
8. Am Domineering	.03			.19***		02	07	

Table 1

Note. CRQ = Central Relationship Questionnaire. The rating scale for the CRQ ranges from 1 (never true or typical of me) to 7 (always true or typical of me). *p < .05. **p < .01. ***p < .001.

bach's alpha coefficients and corrected item-total correlations. Cronbach's alpha coefficients for each subscale are listed separately in Table 2, along with the mean and standard deviation of each subscale. Cronbach's alpha coefficients ranged from .78 to .95 for the seven Wish subscales (Mdn = .90), .82 to .95 for the seven RO subscales (Mdn = .88), and .71 to .94 for the eight RS subscales (Mdn = .89). Thus, the internal consistency for 19 of the 22 CRQ subscales was acceptable with an alpha of at least .80 (Nunnally & Bernstein, 1994); it was lower but still respectable at more than .70 for the Wish subscale To Be Recognized and the RS subscales Am Independent and Am Domineering. Corrected item-total correlations ranged from .44 to .90 for the Wish items, .58 to .85 for the RO items, and from .42 to .87 for the RS items (see Table 2).

Test-Retest

To test the prediction that CRQ themes (i.e., subscale scores) would remain stable across time, we examined test-retest reliability of the CRQ by calculating Pearson correlations between the CRQ subscale scores from two different assessment points. The 54 participants composing the retest sample rated their relationship with their romantic partner on two occasions that were separated by at least a year. All CRQ subscale scores from Time 1 correlated significantly with subscale scores provided a year later (see Table 2). The average Pearson correlation coefficient (reconverted after standardizing the Pearson correlation associated with each subscale with the Fisher z transformation) between scores from Time 1 and Time 2 was .65 (p < .001) for the Wish subscales, .66 (p < .001) for the RO subscales, and .63 (p < .001) for the RS subscales. (The results of Spearman correlations, which assess relative rather than absolute stability, were of similar magnitudes.)

A multivariate analysis of variance (MANOVA) with repeated measures on the within-subject variables of Time and CRQ subscale was conducted on Time 1 and Time 2 ratings, separately for each CRQ component, to determine whether mean subscale scores changed significantly over the period of 1 year. The results of the MANOVA for the Wish subscales suggested a significant effect for time, F(1, 52) =11.62, p < .01. Results of univariate F tests indicated that mean scores decreased significantly across a 1-year period for five of the seven Wishes (see Table 2): specifically, To Be Supportive, To Be Recognized, To Be Trusted, To Be Sexual, and Not to Be Abandoned. Unlike the results of the Wish subscales, the mean subscale scores from Time 1 were not significantly different from those at Time 2 for any of the RO or RS subscales, Fs(1, 52) = .61 and 1.95, respectively. Thus, the findings pertaining to RO and RS subscales were

	Internal consistency $(N = 411)$						Retest reliability $(N = 54)$							
						Tin	ne 1	Tin	ne 2					
Subscale	Items per subscale	М	SD	α	Range of item-total r ^a	М	SD	М	SD	F	r	Lin's r		
					Wish									
To Be Supportive	16	5.71	1.14	.95	.5282	6.25	0.51	5.90	1.02	8.31**	.50***	.36**		
To Be Independent	5	6.21	1.11	.87	.44–.78	6.16	1.26	5.92	1.61	1.73	.65***	.61***		
To Be in Conflict	10	2.01	0.99	.90	.48–.73	1.49	0.53	1.52	0.50	0.32	.70***	.68***		
To Be Recognized	3	5.85	1.18	.78	.5770	5.46	1.40	5.08	1.79	5.41*	.78***	.73***		
To Be Trusted	5	5.88	1.20	.84	.55–.76	6.00	1.30	5.59	1.67	4.54*	.58***	.53***		
To Be Sexual	7	5.64	1.51	.95	.63–.90	5.98	1.06	5.56	1.55	8.22**	.71***	.62***		
Not to Be Abandoned	3	5.43	1.66	.90	.79–.82	5.94	1.77	5.07	2.26	10.97**	.56***	.49***		
Total	49							_						
]	Response from o	ther								
Hurts Me	3	3.28	1.62	.88	.74–.78	2.37	1.00	2.53	1.02	2.48	.74***	.73***		
Loves Me	13	5.04	1.34	.95	.6584	5.80	0.70	5.76	0.82	0.21	.79***	.77***		
Is Independent	5	5.30	1.21	.87	.63–.77	5.63	0.88	5.62	0.96	0.00	.44**	.43***		
Controls Me	5	2.34	1.21	.87	.5880	2.22	0.84	2.19	0.85	0.31	.71***	.69***		
Is Out of Control	6	2.54	1.28	.89	.58–.81	2.03	0.74	2.11	0.75	0.45	.66***	.65***		
Is Anxious	4	2.99	1.27	.82	.60–.74	2.45	1.04	2.63	1.12	1.10	.53***	.50***		
Is Sexual	3	5.00	1.72	.92	.82–.85	5.60	1.12	5.58	0.99	0.07	.67***	.66***		
Total	39													
					Response of se	elf								
Feel Valued	9	4.71	1.43	.94	.63–.87	5.57	0.94	5.54	0.94	0.09	.68***	.68***		
Care for Other	10	5.27	1.18	.92	.59–.78	6.06	0.55	5.91	0.72	3.76	.66***	.62***		
Feel Anxious	13	3.19	1.32	.93	.5677	2.15	0.78	2.21	0.87	0.46	.78***	.77***		
Feel Disliked	4	2.50	1.21	.83	.63–.68	1.92	0.52	2.00	0.57	1.18	.57***	.55***		
Avoid Conflict	3	4.04	1.51	.87	.71–.78	4.06	1.59	3.86	1.63	1.25	.53***	.52***		
	_													

Cronbach's Alpha Coefficients, Corrected Item-Total Correlations, and Retest Reliability for CRQ Subscales

Total Note. CRQ = Central Relationship Questionnaire. The rating scale for the CRQ ranges from 1 (never true or typical of me) to 7 (always true or typical of me). Lin's (1992) concordance correlation extends the Pearson r by simultaneously considering the correlation (Pearson) as well as the level of agreement between mean scores. The Lin coefficient ranges from 0 to 1, with higher scores reflecting agreement both in direction and mean level.

.42-.62

.65--.86

.55-.55

5.15

5.46

2.91

0.93

0.94

1.21

^aCorrected item-total subscale correlation. *p < .05. **p < .01. ***p < .001.

Table 2

Am Sexual

Am Independent

Am Domineering

consistent with the notion that the construct underlying the CRO is relatively stable.

5

5

2

51

5.27

4.85

2.64

1.08

1.53

1.32

.77

.90

.71

Because of the discrepancy between the results from the correlations and F tests of the Wish subscales, an analysis was undertaken that determines the congruence of the subscale ratings across time in terms both of their correlation and their mean difference. An extension of Pearson's correlation coefficient, Lin's (1992) concordance correlation coefficient simultaneously considers the correlation as well as the level of agreement between mean scores from Time 1 and Time 2. Ranging from 0 to 1, Lin's coefficient is large only when the paired scores are highly correlated and have similar means; it is small when the correlation is weak and/or the means are significantly different. The Lin concordance correlation coefficients computed between scores from Time 1 and Time 2 were all significant (see Table 2). These

concordance correlations were converted to Fisher z scores from which normal standard deviates were derived in order to obtain the Lin coefficients' significance (Lin, 1992). The average concordance correlation was .58 for Wishes (p < .001), .64 for ROs (p < .001), and .61 for RSs (p < .001). The significant coefficients indicated that ratings across 365 days remained positively and significantly correlated, even after considering the discrepancy between their means.

0.01

1.24

0.11

0.91

0.97

1.28

5.14

5.36

2.89

.62***

.53***

.65***

.60***

.51***

.63***

Convergent and Divergent Validity

To adjust for the number of correlations being examined, we set alpha to .01 and used two-tailed rather than one-tailed tests to judge the significance of each prediction.

CRQ and Types of Interpersonal Problems

The correlations that were computed to test the CRQ's convergence-divergence with the IIP are shown in Table 3. Each CRQ component is considered in turn. As testament to the general absence of associations anticipated between the Wish subscales and the IIP, the correlations between the two measures' scale scores ranged from -.19 to .25, with an average correlation of .01. As expected, the Wish subscale To Be in Conflict was positively associated with the IIP's Domineering and Vindictive scales. However, contrary to predictions, the To Be in Conflict subscale was not negatively related to the IIP's Nonassertive or Exploitable scales. In terms of the Wish subscale To Be Supportive, it demonstrated the predicted negative correlation with both the IIP's Vindictive and Cold scales, but it failed to evidence a positive association with the IIP's Norturant scale.

The RO subscales Hurts Me and Loves Me correlated positively and negatively, respectively, with the average IIP score, as predicted. Also conforming to expectations at the individual scale level, the Controls Me subscale was positively related to the IIP's Nonassertive and Exploitable scales.

Consistent with predictions for RSs, the average IIP score correlated negatively with the positively themed RS subscales of Feel Valued and Am Independent and correlated positively with the negatively themed RS subscales of Feel Anxious and Feel Disliked. Also, as expected at the scale level, the RS subscale Care for Other was negatively associated with the IIP Vindictive and Cold scales, although, contrary to expectations, it was not related to the Overly Nurturant scale. The RS subscale Am Domineering displayed the predicted positive association with the IIP's Domineering scale, but it did not demonstrate the expected negative association with submissiveness from the IIP's Nonassertive or Exploitable scales. Furthermore, Avoid Conflict was not significantly positively related to the IIP's Exploitable or Nonassertive scales.

Response of Self and Self-Reported Symptomatology

The convergent validity of the RS subscales was also examined in association with measures of psychiatric symptoms. Tests of these predictions could only be examined in the diagnostic group, whose members were the only participants to complete these specific measures (all of these correlations were computed on 96 observations). As expected, Feel Anxious was positively associated with neuroticism from the NEO, psychiatric symptomatology from the SCL-90-R, and depression from the BDI (see Table 3). However, contrary to predictions, Feel Anxious did not correlate significantly with anxiety from the BAI. Consistent with expectations, Feel Disliked was positively related to psychiatric severity.

Differences Between the Diagnostic and Student Groups

The CRQ's divergent validity was also evaluated by conducting a MANOVA to test the prediction that the diagnostic group should score higher on the negatively themed CRQ subscales and lower on the positively themed CRQ subscales than would the student group. A MANOVA was conducted using the Wish subscale Not to Be Abandoned, the RO subscales Hurts Me and Loves Me, and the RS subscales Feel Valued, Care for Other, Feel Anxious, Feel Disliked, and Avoid Conflict as the dependent variables and group (diagnostic vs. student) as the independent variable. The multivariate F test yielded a significant main effect for group, F(8, 400) = 7.14, p < .001. Alpha was divided by the number of univariate F tests being conducted and set at .0063. As predicted, the results of univariate Ftests revealed that the diagnostic group scored significantly higher on the negative subscales of Hurts Me, Feel Anxious, and Feel Disliked and scored significantly lower on the positive subscales of Loves Me, Feel Valued, and Care for Other than did the student group (see Table 4). The only findings that did not support the general prediction were that the diagnostic group did not evidence greater endorsement of the Wish subscale Not to Be Abandoned or the RS subscale Avoid Conflict relative to the student group.

Discussion

The purpose of the present investigation was to evaluate the psychometric properties of a self-report form of central relationship patterns. The present results indicate that each CRQ component (Wishes, ROs, and RSs) can be differentiated into various factors and that the subscales derived from these factors evidence acceptable internal consistency, testretest reliability, and generally converge and diverge in predictable ways with measures of interpersonal problems and symptomatology. In the following discussion we summarize the current evidence, provide specific suggestions for further establishing the CRQ's reliability and validity, and consider how the CRQ, once refined, might be applied in future research.

The three principal-components analyses, with very few exceptions, replicated the subscales suggested by preliminary construction of the CRQ. Although such evidence supports the reliability of the structure of each CRQ component, it is recognized that future work may need to involve a confirmatory factor analysis, and it may be worthwhile to demonstrate that the CRQ comprises three distinct components. The subscales derived from the factors evidenced acceptable levels of internal consistency and correlated with each other in expected ways. Unfortunately, the interscale correlations also reflected significant overlap between certain subscales. However, it is worth pointing out that the substantial intercorrelations among the CRO subscales seem typical of interpersonal measures. For example, in a large-scale study of the IIP (Gurtman, 1994; see his Table 12.2), the portion of interscale correlations above .4 (57%) was practically the same as that for the CRQ's Wish subscales (52%; the high interscale correlations were most apparent among the Wish subscales).

Given the assumption that the CRQ is intended to measure a relatively stable construct, a second aim of the present study was to evaluate the test-retest reliability of the

					IIP scale						INICAL STREET	Intersure of an analysis	
CRQ subscale	Domineering	Vindictive	Cold	Socially Avoidant	Nonassertive	Exploitable	Overly Nurturant	Intrusive	IIP ave	BDI	BAI	Neuro	SCL-90-R
					M	Wish					2		
To Be Sunnortive	-00	- 14**	19***	12*	- 00	01	.04	05	11*	04	10.	.02	05
To Be Independent	05	10	08	11*	04	00	8	03	06	E0.	20	.18	10.
To Be in Conflict	.23***	.25***	.20***	.12*	.11*	. 07	8. S	.17**	.20***	10	07	- 04	E0: 1
To Be Recognized	8	02	06	-0 4	- 01	:03 50	80. 8	52	32	ŝ	ţ,	±±67.	12
To Be Trusted	08	60. I	*[[`-	8 .2	10	e Si C	<u>.</u> 2	83	89	8.5 I	6 7 1	*IC	- 02
To be Sexual Not to Be Abandoned	9 8. 9	7 7 7	05 05	5. 1. 1.	8.	10	.14**	<u>.</u>	80.	.16	.03	.26*	.12
					Response	Response from other							
Unite Ma	07	07	ω	6Ú	60	*[]	.12*	.14**		.22*	60.	.10	.16
Towe Ma	- E	60 -	- 17**	- 14**		60 -	60.1	11*	•	14	10	10.	15
LOVES MIC Is Independent	14**	- 17**	- 18***	15**		12*	08	17**	'	90.	.02	.12	0
Controls Me	18***	23***	.16**	.25***		.27***	.25***	.27***		.31**	.31**	.24*	.31**
Is Out of Control	.22***	.25***	.15**	80.	.03	.02	80.	.18***	.16**	.10	<u>9</u> ;	60 ⁻ -	1.5
Is Anxious	.20***	.21***	.15**	80.		.05	.07	.16**		<u>51</u>	Si i	1.1	.12
Is Sexual	- <u>-</u> -	03	06	07		04	03	08	07	17	17	1. 1.	24*
					Respon	Response of self							
Feel Valued	-,10*	11*	18***	16**	16**	12*	12*	13*		1	15	10	19
Care for Other	14**	20***	25***	10*	08	- 06	01	11*		10	8; 	03 03	–.10
Feel Anxious	.14**	.18***	.23***	.28***	.32***	.31***	.26***	.29***			ei.	** 1 .**	*97
Feel Disliked	.26***	.24***	.21***	.18***	.14**	.17**	.20***	.3]***			.26**	*?;	*** 7 7.
Avoid Conflict	07	8	03	.10*	.10*	.12*	2	01	8	.10	.13	-77	-14
Am Independent	10*	17**	17**	28***	32***	35***	- 24***	24***		- 30**	- 32**	* <u>67</u> .9	*16
Am Sexual	- 03	60'-	19***	16**	17**	19***	13*	60	I	23*	19	60. I	+17
Am Domineering	.34***	.28***	.16**	.13*	.02	90.	.]4**	.23***	.22***	.15	61.	60.	61.

 Table 3

 Correlations Between CRQ Subscales and IIP Scales and Measures of Symptomatology

we average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Anxiety IIP score; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Anxiety IIP score; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Anxiety IIP score; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Anxiety IIP score; Neuro = neuroticism score from the NEO-FFI; SCL-90-R = Symptom ave = average IIP score; BDI = Beck Anxiety IIP score; BDI = Beck Anxiety IIP score; Beck Anxiety

CRQ INITIAL REPORT

139

		tic group • 96)		t group 313)		
Subscale	М	SD	М	SD	F	p^{b}
Wish Not to Be Abandoned ^a	5.30	1.78	5.47	1.63	0.70	.203
RO Hurts Me ^a	3.82	1.64	3.11	1.58	14.50	.000
RS Feel Anxious ^a	3.84	1.35	3.00	1.24	33.28	.000
RS Feel Disliked ^a	2.79	1.27	2.41	1.17	7.22	.004
RS Avoid Conflict ^a	4.31	1.33	3.95	1.55	4.10	.022
RO Loves Me	4.39	1.41	5.24	1.26	31.62	.000
RS Feel Valued	4.02	1.51	4.92	1.34	30.67	.000
RS Care for Other	4.99	1.07	5.35	1.21	7.27	.004

Divergent Validity of CRQ: Mean Differences Between Diagnostic and Student Groups

Note. The rating scale of the Central Relationship Questionnaire (CRQ) ranges from 1 (*never true* or typical of me) to 7 (always true or typical of me). RO = response from other; RS = response of self.

^aNegatively themed subscale. ^bOne-tailed.

CRQ. The CRQ ratings from two different assessment periods correlated significantly and substantially. It should be noted that most test-retest administrations are separated by only 4 to 8 weeks, whereas there was a minimum interim of 52 weeks between the two administrations of the CRQ in our study. In this sense, our findings provide an index of stability of the CRQ rather than of mere test-retest reliability, which is often inflated by memory of Time 1 responses (Anastasi, 1988). The results of the repeated measures analysis indicated that the average RO and RS subscale scores did not change significantly across a 1-year period; however, the results were less supportive of the stability of the Wish subscales. Five of the seven Wish subscale means decreased significantly over a year. This latter finding might reflect that individuals become less extreme in their wishes toward their romantic partners as time passes and that perhaps they become more realistic in their expectations. Still, the Lin coefficients indicated that the ratings of Wish items remained significantly and substantially correlated over time, even after taking into consideration the difference in mean scores.

It should be mentioned, however, that a previous study using CCRT methodology based on ratings of therapy sessions reported retest findings in the opposite direction: In that particular study, it was the Wishes that remained unchanged after therapy, whereas the ROs and RSs became less negative (Crits-Christoph & Luborsky, 1990). Although it could be argued that the inconsistency between the two studies suggests that the CRQ and CCRT methods are not measuring the same construct, the difference across studies more likely reflects the difference between the studies' samples. Crits-Christoph and Luborsky (1990) examined session narratives of clients undergoing psychotherapy, whereas our investigation involved nonclients. Thus, the inconsistency across studies might mean that central relationship patterns change in different ways over time depending on whether an individual is a client in psychotherapy or not. The present results suggest that the CRQ is assessing a relatively stable construct rather than a state, just as it is supposed to. It remains to be shown, however, if the CRQ would exhibit less stability in a sample of psychotherapy clients who change during treatment.

The results of the present investigation also provide preliminary evidence of the CRQ's convergent and divergent validity. That is, 19 of the 28 predicted correlations between the CRQ subscales and both the IIP and measures of symptoms were consistent with predictions regarding specific scales. Also, 47 out of 56 correlations supported our general prediction of a null relationship between the Wish subscales and the IIP. Note that there were 63 possible correlations between the Wish subscales and the IIP but there were seven specific predictions. The CRQ also broadly discriminated between a group of students and a group of individuals who met DSM-III-R diagnostic criteria for psychiatric disorders. Still, it is important to account for the unexpected findings. For instance, the absence of a positive correlation between the IIP's Overly Nurturant scale and both the Wish subscale To Be Supportive and the RS subscale Care for Other might be because these CRQ subscales were not meant to tap excessive degrees of care taking in the same way intended by the IIP. Also, the failure of the Wish subscale To Be in Conflict and the RS subscale Avoid Conflict to correlate negatively and positively, respectively, with the IIP's Nonassertive or Exploitable scales might simply reflect that most individuals (and not just submissive ones) do not regularly engage in conflict with their romantic partners. The lack of an inverse relationship between dominance (RS subscale) and submission (the IIP's Nonassertive or Exploitable scales) is inconsistent with interpersonal theory, which places them at opposite ends of a continuum; however, it is not necessarily incompatible with psychodynamic theory, which may view a person as both dominant and submissive. Given that the RO Controls Me evidenced the expected positive association with the IIP's Nonassertive and Exploitable scales, this anomaly might be attributable to severe restriction of range in the RS Am Domineering (there was little endorsement of this scale; see Table 2), which in turn would have affected the reliability of this correlation. Finally, the failure of the RS Feel Anxious to converge with anxiety from the BAI could be accounted

Table 4

for by the fact that the latter instrument concentrates relatively heavily on physical manifestations of anxiety, whereas the CRQ measures anxiety in terms of interpersonal vulnerability, depression, and self-doubt.

Despite this general support for the CRQ's convergent and divergent validity, further evidence of this type of validity is needed because the measures involved in the current evaluation do not directly assess central relationship patterns, and there was no diagnostic information on the student group (although this absence means that the differences between the student and diagnostic groups were underestimated). The ultimate test of the CRQ's convergent validity is whether it converges with CCRTs derived from independent clinician ratings. Not only would this provide the most critical evaluation of the CRQ's convergent validity but it would also help elucidate the degree to which individuals are able to report on their own central relationship patterns (an intriguing issue in its own right). Another limitation is that although we are assuming that the CRQ is a measure of central relationship patterns across different types of relationship (e.g., mother, father, best friend), in the present study we have assessed wishes, ROs, and RSs based on only one relationship. Obviously, we will need to explore the psychometric properties of the CRQ when it is filled out in regard to different types of relationships and in different samples.

Although further empirical development of the CRQ is first required, it is worth pointing out its potential applications in counseling and psychotherapy research. Researchers are increasingly recognizing the importance of having theoretically relevant outcome measures (e.g., Imber et al., 1990) to adequately test the efficacy of dynamic psychotherapy (e.g., Barber, 1994), where change in maladaptive relationship patterns (and not only symptom reduction) is a primary aim of treatment. If the CRQ were to be used for this purpose, it would first have to be shown that the CRQ is sensitive to therapeutic change, and then it would have to be demonstrated that this change is specific to psychodynamic therapy. The CRQ might also be used as a measure of intrapsychic conflict-a core concept of psychodynamic theory-given that the CRQ, unlike other existing selfreport measures of interpersonal patterns, assesses wishes and responses of self and others, and the relationships among those components. Another interesting avenue for future studies would be to identify the CRQ profiles of clients with particular personality disorders, which could then be used to guide treatment formulation.

To sum up, the present investigation took on the task of developing a self-report measure of central relationship patterns that would not incur the cost of clinician-rated CCRTs. Overall, the results of the present study suggest that the CRQ is an encouraging first step in achieving this objective and that future research to further examine the psychometric properties of the CRQ is warranted. Once refined, the CRQ would not only provide a cost-efficient measure of central relationship patterns but would also allow us to more readily address questions about psychodynamic theory and therapy.

References

- Alden, L. E., Wiggins, J. S., & Pincus, A. L. (1990). Construction of circumplex scales for the Inventory of Interpersonal Problems. *Journal of Personality Assessment*, 55, 521-536.
- American Psychiatric Association. (1987). Diagnostic and statistical manual of mental disorders (3rd ed., rev.). Washington, DC: Author.
- Anastasi, A. (1988). *Psychological testing* (6th ed.). New York: Macmillan.
- Barber, J. P. (1994). Efficacy of short-term dynamic psychotherapy: Past, present and future. *Journal of Psychotherapy, Practice and Research*, 3, 108–121.
- Barber, J. P., & Crits-Christoph, P. (1993). Advances in measures of psychodynamic formulations. *Journal of Consulting and Clini*cal Psychology, 61, 574–585.
- Barber, J. P., Crits-Christoph, P., & Luborsky, L. (1990). A guide to the standard categories and their classification. In L. Luborsky & P. Crits-Christoph (Eds.), *The Core Conflictual Relationship Theme* (pp. 37-50). New York: Basic Books.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. Journal of Consulting and Clinical Psychology, 56, 893– 897.
- Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8, 77–100.
- Beck, A. T., Ward, C., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory to measure depression. Archives of General Psychiatry, 4, 561–571.
- Benjamin, L. S. (1977). Structural analysis of a family in therapy. Journal of Consulting and Clinical Psychology, 45, 391–406.
- Benjamin, L. S. (1988). Structural analysis of social behaviorshort form user's manual. Unpublished manuscript, INTREX Interpersonal Institute, Salt Lake City.
- Brenner, C. (1982). The mind in conflict. New York: International Universities Press.
- Cattell, R. B. (1966). The scree test for the number of factors. Multivariate Behavioral Research, 1, 245–276.
- Costa, P. T., & McCrae, R. R. (1991). *NEO-FFI* (Form S). Odessa, FL: Psychological Assessment Resources.
- Costa, P. T., & McCrae, R. R. (1992). *NEO PI/FFI* (Manual suppl.). Odessa, FL: Psychological Assessment Resources.
- Crits-Christoph, P., Cooper, A., & Luborsky, L. (1990). The measurement of accuracy of interpretations. In L. Luborsky & P. Crits-Christoph (Eds.), Understanding transference: The CCRT method (pp. 173-188). New York: Basic Books.
- Crits-Christoph, P., & Luborsky, L. (1990). Changes in CCRT pervasiveness during psychotherapy. In L. Luborsky & P. Crits-Christoph (Eds.), Understanding transference: The CCRT method (pp. 133-146). New York: Basic Books.
- Crits-Christoph, P., Luborsky, L., Dahl, L., Popp, C., Mellon, J., & Mark, D. (1988). Clinicians can agree in assessing relationship patterns in psychotherapy. Archives of General Psychiatry, 45, 1001–1004.
- Curtis, J. T., Silberschatz, G., Sampson, H., & Weiss, J. (1994). The Plan Formulation Method. Psychotherapy Research, 4, 197–207.
- Davanloo, H. (1980). Short-term dynamic psychiatry. New York: Jason Aronson.
- Derogatis, L. R. (1977). The SCL-90: Administration, scoring and procedures manual: I for the revised version. Baltimore, MD: John Hopkins Hospital.
- Eckert, R., Luborsky, L., Barber, J. P., & Crits-Christoph, P. (1990). The narratives and CCRTs of clients with major depression. In L.

Luborsky & P. Crits-Christoph (Eds.), Understanding transference: The CCRT method (pp. 222–234). New York: Basic Books.

- Gurtman, M. B. (1994). The circumplex as a tool for studying normal and abnormal personality: A methodological primer. In S. Stack & M. Lorr (Eds.), *Differentiating normal and abnormal personality* (pp. 243–263). New York: Springer.
- Horowitz, L. M., & Rosenberg, S. E. (1994). The consensual response psychodynamic formulation: I. Method and research results. *Psychotherapy Research*, *4*, 222–233.
- Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureño, G., & Vilaseñor, V. S. (1988). Inventory of Interpersonal Problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology*, 56, 885–892.
- Horowitz, L. M., Rosenberg, S., Ureño, G., Kalehzan, B., & O'Halloran, P. (1989). Psychodynamic formulation, Consensual Response Method, and interpersonal problems. *Journal of Consulting and Clinical Psychology*, 57, 599–606.
- Horowitz, M. J. (1989). Relationship schema formulation: Rolerelationship models and intrapsychic conflict. *Psychiatry*, 52, 260–274.
- Horowitz, M. J., & Eells, T. D. (1993). Case formulations using role-relationship model configurations: A reliability study. *Psychotherapy Research*, 3, 57–68.
- Imber, S. D., Pilkonis, P. A., Sotsky, S. M., Elkin, I., Watkins, J. T., Collins, J. F., Shea, M. T., Leber, W. R., & Glass, D. R. (1990). Mode-specific effects among three treatments for depression. *Journal of Consulting and Clinical Psychology*, 58, 352–359.
- Lin, L. (1992). Assay validation using the concordance correlation coefficient. *Biometrics*, 48, 599-604.
- Luborsky, L. (1977). Measuring a pervasive psychic structure in psychotherapy: The Core Conflictual Relationship Theme. In N. Freedman & S. Grand (Eds.), *Communicative structures and psychic structures* (pp. 367–395). New York: Plenum Press.
- Luborsky, L. (1984). Principles of psychoanalytic psychotherapy: A manual for supportive-expressive treatment. New York: Basic Books.
- Luborsky, L., Barber, J. P., & Crits-Christoph, P. (1990). Theorybased research for understanding the process of dynamic psychotherapy. *Journal of Consulting and Clinical Psychology*, 58, 281–287.
- Luborsky, L., & Crits-Christoph, P. (1990). Understanding transference: The CCRT method. New York: Basic Books.

- Luborsky, L., Popp, C., & Barber, J. P. (1994). Common and special factors in different transference-related measures. *Psycho*therapy Research, 4, 277–286.
- Malan, D. M. (1976a). *The frontier of brief psychotherapy*. New York: Plenum Press.
- Malan, D. M. (1976b). Toward the validation of dynamic psychotherapy. New York: Plenum Press.
- Murray, H. (1938). Explorations in personality: A clinical and experimental study of fifty men of college age. London: Oxford University Press.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed). New York: McGraw-Hill.
- Perry, J. C., Augusto, F., & Cooper, S. H. (1989). Assessing psychodynamic conflicts: I. Reliability of the Idiographic Conflict Formulation Method. *Psychiatry*, 52, 289–301.
- Seitz, P. F. D. (1966). The consensus problem in psychoanalytic research. In L. Gottschalk & A. Auerbach (Eds.), *Methods of research in psychotherapy* (pp. 209-225). New York: Appleton-Century-Crofts.
- Spitzer, R. L., Williams, J. B. W., Gibbon, M., & First, M. B. (1990a). Structured Clinical Interview for Axis I DSM-III-R-Client edition (with psychotic screen): SCID-P (Version 1.0). Washington, DC: American Psychiatric Press.
- Spitzer, R. L., Williams, J. B. W., Gibbon, M., & First, M. B. (1990b). Structured Clinical Interview for DSM-III-R: SCID-II (Version 1.0). Washington, DC: American Psychiatric Press.
- Strupp, H. S., & Binder, J. L. (1984). Psychotherapy in a new key: A guide to time-limited dynamic psychotherapy. New York: Basic Books.
- Talley, P. F., Strupp, H. H., & Morey, L. C. (1990). Matchmaking in therapy: Client-therapist dimensions and their impact on outcome. Journal of Consulting and Clinical Psychology, 58, 182–188.
- Weiss, J., Sampson, H., & the Mount Zion Psychotherapy Research Group. (1986). The psychoanalytic process: Theory, clinical observation and empirical research. New York: Guilford Press.

Received July 17, 1996 Revision received November 18, 1997

Accepted November 18, 1997