

# The Revised Helping Alliance Questionnaire (HAq-II)

## *Psychometric Properties*

LESTER LUBORSKY, P.H.D.  
JACQUES P. BARBER, P.H.D.  
LYNNE SIQUELAND, P.H.D.  
SUZANNE JOHNSON, B.A.  
LISA M. NAJAVITS, P.H.D.  
ARLENE FRANK, P.H.D.  
DENNIS DALEY, M.S.W.

*The concept of the therapeutic alliance and its operationalization have received much attention in recent years. One of the early self-report measures of the therapeutic alliance was the Helping Alliance questionnaire (HAq-I). This scale was recently revised to exclude the items that explicitly reflect improvement. Using the revised 19-item HAq-II on a sample of 246 patients diagnosed with DSM-III-R cocaine dependence, the authors found that the new scale had excellent internal consistency and test-retest reliability. Further, the HAq-II demonstrated good convergent validity with the California Psychotherapy Alliance Scale (CALPAS) total score. Alliance levels as measured by the CALPAS or the Helping Alliance questionnaire during early sessions were not associated with pretreatment psychiatric severity or level of depression.*

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Description and measurement of the therapeutic alliance based on the collaboration and bond between therapist and patient has been a major focus of theoretical and empirical studies in the last two decades. Many measures have been developed to assess the construct of the therapeutic alliance. Helped by Bordin's<sup>1</sup> theoretical division of the alliance into "goals, tasks, and bonds," Luborsky<sup>2</sup> introduced the quantitative concept of the Helping Alliance with three different types of measures composed of similar items: the Helping Alliance Global Rating method,<sup>3</sup> the Helping Alliance Counting Sign method,<sup>4</sup> and the self-report Helping Alliance questionnaire<sup>5</sup> (L. Luborsky et al., "The Penn Helping Alliance Questionnaire (HAq-I): Its Composi-

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Received July 20, 1994; revised September 12, 1995; accepted September 20, 1995. From the Center for Psychotherapy Research, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania; Harvard Medical School, Boston, Massachusetts; and Western Psychiatric Institute and Clinic, Pittsburgh, Pennsylvania. Address correspondence to Dr. Luborsky, 514 Spruce Street, Philadelphia, PA 19106.

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tion and Research Supports," submitted for publication, 1995).

The Helping Alliance methods, as well as other measures of the therapeutic alliance, have been successful predictors of outcome. Summarizing 24 studies, Horvath and Symonds<sup>6</sup> showed that the average effect size of the correlation between alliance and outcome was estimated as  $r=0.26$ . This was a conservative estimate because the authors considered all nonsignificant findings where the value of the correlation was not presented by the original authors as  $r=0.0$ .

In recent years, we have become aware that the HAq-I was limited by the presence of items that were explicitly assessing early symptomatic improvement<sup>7,8</sup> and by the fact that all the items were worded positively. To address these limitations, we deleted the 6 items reflecting early improvement and added 14 new items that appeared to tap more fully the various aspects of the alliance as described by Bordin<sup>1</sup> and Luborsky.<sup>2</sup> Five of the new items related to the collaborative effort of patient and therapist; for example, "The therapist and I have meaningful exchanges." Five additional items addressed the patient's perception of the therapist; for example, "At times I distrust the therapist's judgment." One of the other added items dealt directly with the patient's motivation: "I want very much to work out my problems"; and one other was related to the patient's perception of the therapist's feelings about the patient: "I believe that the therapist likes me as a person." In contrast to the previous version, the revised HAq (hereafter referred to as the HAq-II) included five items that were worded negatively; for example, "The procedures used in my therapy are *not* well suited to my needs."

In the present article we describe the psychometric properties of the HAq-II. We also examine its relations with another widely used measure of the alliance, the California Psychotherapy Alliance Scale<sup>7,9</sup> (CALPAS) and with selected sociodemographic variables.

## METHODS

### Subjects

Participants in this study were 246 outpatients drawn from a total sample of 313 outpatients with a DSM-III-R diagnosis of cocaine dependence who were randomized to one of four treatment conditions described below as part of their participation in the training/pilot phase of the National Institute on Drug Abuse (NIDA) Cocaine Collaborative Study (CCS). The study is coordinated from a center at the University of Pennsylvania and is being conducted there and at Brookside Hospital, McLean/Massachusetts General Hospital, and Western Psychiatric Institute and Clinic.

Exclusion criteria included history of bipolar disorder, psychotic symptoms or disorder, organic brain syndrome, current opioid dependence, current active suicidal or homicidal potential, medical contraindication, or homelessness.

At intake, the patients' average age ( $\pm$  SD) was  $33 \pm 6.6$  years (range 19–59); 69% of the patients were male and 31% were female. Fifty-six percent were Caucasian, 41% African American, and 3% Hispanic or American Indian. Sixty-one percent of the patients were employed. Seventy-six percent of the patients lived alone, and 24% were married or lived with a partner. Seventy-five percent of the sample were primarily crack users, 21% were primarily snorters, and 4% primarily injected cocaine. On average at the time of intake, patients were using cocaine 8.9 days per month and were spending more than \$1,000 a month on drugs. Fifty-two percent of patients had other substance dependence diagnoses (mostly alcohol dependence), and 55% had a personality disorder diagnosis, of which group 20% had antisocial personality disorder. In addition, 15% of patients had a diagnosis of current depressive disorder (9% current major depression), and 17% had some other Axis I diagnosis.

### Treatment

The pilot study was designed to train therapists and counselors and to finalize the protocol for a clinical trial to examine the efficacy of four psychosocial treatments for outpatients diagnosed with cocaine dependence. The treatments were supportive-expressive dynamic therapy<sup>10</sup> (SE), a psychodynamic treatment based on Luborsky's model;<sup>11</sup> cognitive therapy<sup>12</sup> (CT) based on Beck's model; individual drug counseling (IDC) based on the 12-step addiction model (D. Mercer and G. Woody, unpublished, 1992); and group drug counseling (GDC), a psychoeducational and problem-solving group treatment also grounded in the 12-step addiction model (D. Mercer et al., unpublished, 1994). In the pilot phase, patients were randomized to one of the treatment conditions after a brief stabilization phase in which patients had to establish that they could achieve a period of initial abstinence measured by 3 consecutive drug-free urine screens within 30 days. All patients in the individual conditions also received the GDC treatment. Those patients randomized to the GDC-alone condition received only the group treatment. Group sessions were held twice a week for 2 months and once a week for the next 4 months. The active phase of the individual treatment was also 6 months long and consisted of twice-weekly sessions for the first 3 months of treatment and once-weekly sessions for months 4–6. Three to six booster sessions were offered to patients who had stayed in active treatment for the full 6 months.

Therapists and drug counselors had been selected by their training units on the basis of a combination of background education and training, letters of reference, and two audiotaped samples of their therapy/counseling work. Educational requirements for SE and CT therapists were the same (a Ph.D., M.S.W., or M.D.), but the experience criteria differed. SE required 3 to 4 years of postgraduate clinical experience; CT required 6 months of postgraduate experience for M.S.W.s, 1 year for

Ph.D.s, or, for M.D.s, 1 year of supervised individual CT experience during residency. The SE and CT therapists recruited to this study had performed an average of 9.9 and 10.6 years of postgraduate clinical work, respectively.

Drug counselors could not exceed certain levels of qualifications. The highest terminal degree allowable was a bachelor's degree in a mental health-related field, a counseling certificate, or a master's degree in addiction counseling (Certified Alcoholism Counselor). All counselors were required to have 2 to 3 years of drug counseling experience, and, if in recovery themselves, to have at least 5 years in recovery.

### Measures

*Beck Depression Inventory*<sup>13</sup> (BDI). This is a 21-item self-report measure of depression. It is a much-used, reliable measure of depressive symptoms.<sup>14</sup>

*Helping Alliance questionnaire* (HAQ-II). The original HAQ-I<sup>5</sup> is a widely used 11-item questionnaire that measures the strength of the patient-therapist therapeutic alliance. To make up the 19 items of the HAQ-II, 6 items were removed from the HAQ-I and 14 new items were added. Each item is rated on a 6-point Likert scale (1 = I strongly feel it is not true, 6 = I strongly feel it is true). Both a patient and a therapist version were developed. Negatively worded items are reverse scored. The patient version is reproduced as Appendix A.

*Addiction Severity Index*<sup>15</sup> (ASI). The ASI is a structured interview that assesses the patient's lifetime and current (last 30 days) functioning in seven target areas related to substance use: medical status, employment status, alcohol use, drug use, legal status, psychiatric status, and family/social relationships. The measure offers composite scores for each target area as well as severity ratings. It has been shown to be reliable and valid.<sup>16,17</sup> Test-retest reliability of 0.83 or higher is reported on all scales.<sup>18</sup> We report here only the drug use and psychiatric composite scores because

these are prognostic factors that might affect, or have been shown to affect, the establishment of alliance.<sup>19</sup>

*Brief Symptom Inventory*<sup>20</sup> (BSI). This is a brief, 53-item version of the self-report Symptom Checklist-90-Revised, a measure of psychiatric symptoms. Each item is rated on a 5-point Likert scale that ranges from "not at all distressed" to "extremely distressed." The measure yields three global indicators and nine symptom dimensions. The global severity index (GSI), the mean of the 53 items, is used in the current study. Reliability and validity data on the measure are reviewed in Derogatis.<sup>21</sup>

*California Psychotherapy Alliance*<sup>7,9</sup> (CALPAS). This is a 24-item questionnaire with a 7-point Likert scale (1 = not at all, 7 = very much so). The CALPAS is composed of four scales: Patient Working Capacity, Patient Commitment, Therapist Understanding and Involvement, and Working Strategy Consensus. Like the HAq, the CALPAS has both a patient and a therapist version. Reliability and validity are reviewed in Gaston.<sup>7</sup>

*Cocaine Inventory*. This is a measure modified for this study from an unpublished measure originally designed by Bristol-Myers Squibb.<sup>22</sup> There are no summary scores for this measure, but it consists of the following questions: how many times she or he has used cocaine in the last week, how much money was spent on cocaine in the last week, the method of administration, and number of times other drugs were used in the last week. In this study, only the first item was used to reflect that week's cocaine use.

*Hamilton Rating Scale for Depression*.<sup>23</sup> The Structured Interview Guide for the Hamilton Rating Scale for Depression<sup>24</sup> (SIGH-D) was used. Although the 27-item version of the interview was administered to patients, the scores reported are for the 17 items in the most commonly used version of the Hamilton. The SIGH-D is a structured clinical interview that assesses a variety of depressive symptoms, including depressed mood, guilt, neurovegetative symptoms, hopelessness, helplessness,

and suicidality. The Ham-D and the SIGH-D are standard measures in the field.

*Global Assessment of Functioning*<sup>25</sup> (GAF, DSM-III-R, Axis V). This is a single global rating scale that takes into account psychological, social, and occupational functioning. The GAF is much the same as the older 100-point Health-Sickness Rating Scale,<sup>26</sup> but it ranges from 0 to 90. These scores reflect low to high levels of functioning.

### Procedures

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Patients filled out the HAq-II and the CALPAS at the end of sessions 2, 5, and 24 and the last session of the active phase of treatment. The therapists filled out the HAq-II and the CALPAS on the same occasions. The patients also completed the Cocaine Inventory prior to each session and had twice-weekly urine screens for drug use. The BDI, Hamilton, GAF, BSI, and other measures were administered at intake into the study.

A total of 246 patients completed one of the alliance measures at least once. As a result, the *n*'s differ for the different analyses. Excluded from the sample are 6 patients who had to change therapists during treatment because their therapists left the study.

## RESULTS

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Basic descriptive statistics for the alliance measures at the different points in time are presented in Table 1. One hundred and ninety-seven patients filled out both the CALPAS-P and the HAq-II at session 2.

### Reliability

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Internal consistency (Cronbach's alpha) of the 19-item HAq-II and of the CALPAS (total scale) was measured separately for sessions 2, 5, and 24 and was found to reflect homogeneous scales (Table 2). For example, correlations between corrected item and total scale for the items of the HAq-II patient version at session 2 ranged from 0.30 to 0.79.

Only 3 out of 19 correlations were below 0.40, and the median correlation between corrected item and total was 0.64. Because patients sometimes did not complete a particular item on a scale or subscale, the number of patients on which the Cronbach's alphas were computed is somewhat lower than the number of patients presented in Table 1 for all measures.

Test-retest reliability coefficients for all measures, but especially for the HAq-II patient version, were quite high over a three-session span from session 2 to session 5 (Table 3). A mean ( $\pm$ SD) of  $16.3 \pm 10.3$  days elapsed between these sessions. We also examined the correlations between the alliance measures filled out at session 5 and again at session 24. The correlations that are shown in Table 4 provide an index of the stability of the measure over the relatively long period of time between those two sessions (a mean of  $112.3 \pm 41.1$  days). The degree of similarity between alliance ratings at session 5 and at session 24 were quite high. Nevertheless, it needs to be emphasized that only between 75 and 88 patients and between 78 and 88 therapists had scores on the different instruments on these two occasions because of patient attrition and lack of compli-

ance with research requests (where patients and therapists either were not given the forms or did not fill them out).

### Factor Structure

We examined the factorial structure of the HAq-II patient version filled out at session 2 by using a principal components analysis with a varimax rotation. Using the scree test and a criterion of eigenvalues greater than 1, three factors were extracted. Because the third factor consisted of only two items (#11 and #14) and explained only 6% of the variance, this factor was not retained. Factor 1 ("positive therapeutic alliance") was made up of items 1, 2, 3, 5, 6, 7, 9, 10, 12, 13, 15, 17, and 18 and explained 43.3% of the variance. Factor 2 ("negative therapeutic alliance") was made up of items 4, 8, 16, and 19 and explained 10.6% of the variance. At session 2 the correlation between factors 1 and 2 was found to be  $r = 0.48$  ( $n = 200$ ,  $P < 0.001$ ). At session 5, the correlation was  $r = 0.60$  ( $n = 182$ ,  $P < 0.001$ ); at session 24,  $r$  was 0.64 ( $n = 87$ ,  $P < 0.001$ ). Because of the high correlations between these two factors at the different points in time, the high internal

**TABLE 1. Descriptive statistics of the alliance measures at sessions 2, 5, and 24**

Variable	Session	Mean $\pm$ SD	Minimum	Maximum	<i>n</i>
HAq-P	2	5.15 $\pm$ 0.58	2.11	6.00	201
HAq-P	5	5.26 $\pm$ 0.55	3.26	6.00	182
HAq-P	24	5.30 $\pm$ 0.62	1.53	6.00	87
HAq-T	2	4.63 $\pm$ 0.61	2.42	5.95	200
HAq-T	5	4.72 $\pm$ 0.53	3.00	5.95	178
HAq-T	24	4.92 $\pm$ 0.57	3.00	6.00	90
CALPAS-P	2	5.84 $\pm$ 0.65	3.78	6.96	246
CALPAS-P	5	5.90 $\pm$ 0.69	3.58	7.00	213
CALPAS-P	24	6.00 $\pm$ 0.69	3.65	7.00	92
CALPAS-T	2	4.57 $\pm$ 0.89	1.67	6.96	246
CALPAS-T	5	4.74 $\pm$ 0.83	2.75	6.17	206
CALPAS-T	24	4.94 $\pm$ 0.97	2.38	6.67	93

◆ *Note:* HAq-P = Helping Alliance questionnaire-II, Patient version; HAq-T = HAq-II, Therapist version; CALPAS-P = California Psychotherapy Alliance Scales, Total Scale, Patient version; CALPAS-T = CALPAS, Total Scale, Therapist version.

consistency of the entire scale, and the small number of items in factors 2 and 3, only the results using the entire scale are presented throughout the rest of this article.

### Validity Studies

**Convergent Validity With Another Measure of the Alliance:** Table 5 shows the correlations between the HAq-II and the CALPAS total scores for both the patient and therapist versions at sessions 2, 5, and 24. Large significant correlations were found between the two measures of alliance when filled out by the same person. The correlations between the patient version of the CALPAS subscales and the HAq-II ranged from 0.38 to 0.71, indicating a fair amount of common variance (ranging from 35% to 49%, depending on the subscale and the session measured). The relation between the therapists' version of the CALPAS and HAq-II tended to be slightly higher than the patients' correlations, ranging from 0.61 to 0.79.

**Discriminant Validity: Alliance versus sociodemographic variables:** Correlations between the alliance measures early in treatment and age, race, gender, marital status, and employment were also computed. As expected, no relation between those variables and either measure of alliance at session 2 or session 5 was found.

**Discriminant Validity: Alliance versus pretreatment measures of severity of psychiatric dysfunction and drug use:** To examine the discriminant validity of the alliance and psychiatric severity, we computed correlations among those variables. As shown in Table 6, neither measure of alliance was associated with intake measures of psychological functioning (GAF), psychiatric severity (ASI psychiatric severity and BSI), drug use (ASI drug use), or depression level (Hamilton Depression and BDI). Because of the number of correlations done, we corrected the alpha level by dividing it by 12. There was no indication that higher alliance was related to intake measures of symptom severity. Furthermore, inspection of the data in Table 6 does not reveal any differences in the patterns of correlations of the HAq-II or of the CALPAS.

**Discriminant Validity: Alliance versus concurrent measures of severity of psychiatric dysfunction and drug use:** To complete this further analysis, we looked at the symptom measures that were available at the time the alliance questionnaires were filled out. The only session measure given to the patient at the same time as the alliance measure was the Cocaine Inventory. We examined the correlations between one item on this instrument ("How many times have you used cocaine in the last week?") and the respective alliance measures at both ses-

**TABLE 2. Internal consistency of HAq-II and CALPAS for patient and therapist versions and their correlations**

Scale	Session 2	Session 5	Session 24
HAq-II-Patient	0.90 ( <i>n</i> = 174)	0.90 ( <i>n</i> = 171)	0.93 ( <i>n</i> = 83)
HAq-II-Therapist	0.93 ( <i>n</i> = 193)	0.90 ( <i>n</i> = 169)	0.91 ( <i>n</i> = 88)
CALPAS-Patient	0.80 ( <i>n</i> = 217)	0.84 ( <i>n</i> = 199)	0.82 ( <i>n</i> = 83)
CALPAS-Therapist	0.94 ( <i>n</i> = 217)	0.94 ( <i>n</i> = 188)	0.95 ( <i>n</i> = 87)

◆ *Note.* HAq-II-P = Helping Alliance questionnaire-II, Patient version; HAq-II-T = HAq-II, Therapist version; CALPAS-P = California Psychotherapy Alliance Scales, Total Scale, Patient version; CALPAS-T = CALPAS, Total Scale, Therapist version.

sion 2 and 5. Because the number of times cocaine was used was not distributed normally (many patients had not used in the last week), we calculated Spearman rank correlations. As shown in the bottom row of Table 6, we found that the higher the alliance (as measured by the HAQ-II and the CALPAS), the lower the amount of drug use during the same week. The correlations were significant for session 5, although not for session 2.

### DISCUSSION

In this report we present psychometric data on the HAQ-II, an improved version of the HAQ-I in composition and length. Both patient and therapist versions of the new scale showed

good internal consistency and test-retest reliability even though the latter coefficients might have been reduced by opportunities for changes in the patient-therapist relationship occurring in the normal course of treatment. Long-term stability of the alliance in those patients who stayed in treatment until at least session 24 also was found to be adequate considering the amount of time between the two sessions.

In terms of convergent validity, the HAQ-II demonstrated high convergence with another, widely used self-report measure of alliance, the CALPAS total score (correlations of 0.59 to 0.69 for the patient version and 0.75 to 0.79 for the therapist version; Table 5). This was the first demonstration of this agreement;

**TABLE 3. Test-retest reliability of the HAQ-II and the CALPAS over 3 sessions (from session 2 to 5) for patient and therapist versions**

Scale	Patient Version	Therapist Version
HAQ-II	0.78 ( <i>n</i> = 168)	0.56 ( <i>n</i> = 166)
CALPAS Total	0.59 ( <i>n</i> = 197)	0.53 ( <i>n</i> = 194)
Patient Working Capacity	0.46	0.44
Patient Commitment	0.55	0.53
Working Strategy Consensus	0.50	0.49
Therapist Understanding and Involvement	0.34	0.59

◆ Note: HAQ-II = Helping Alliance questionnaire-II; CALPAS = California Psychotherapy Alliance Scales, Total Scale. All  $P < 0.001$ .

**TABLE 4. Correlations of the HAQ-II and the CALPAS between sessions 5 and 24: stability**

Scale	Patient Version	Therapist Version
HAQ-II	0.34** ( <i>n</i> = 74)	0.55*** ( <i>n</i> = 78)
CALPAS Total	0.49*** ( <i>n</i> = 85)	0.52*** ( <i>n</i> = 88)
Working Capacity	0.39***	0.41***
Patient Commitment	0.52***	0.54***
Working Strategies	0.36**	0.48***
Therapist Understanding	0.28*	0.46***

◆ Note: HAQ-II = Helping Alliance questionnaire-II; CALPAS = California Psychotherapy Alliance Scales, Total Scale.  
\*  $P < 0.01$ ; \*\*  $P < 0.005$ ; \*\*\*  $P < 0.001$ .

an earlier study had reported low convergence between the Helping Alliance Rating Scale and the CALPAS.<sup>27</sup> That study, however, used rater-based methods, rather than self-report, to assess alliance. It thus seems that, at least in cocaine-dependent patients, the two self-report measures converge, although further studies are needed to generalize across clinical samples. The level of convergence is also evident when comparing the two measures qualitatively. Five of the items from each scale are virtually the same, and several others are very close in meaning.

One of the most important changes introduced in this new version of the HAq is the attempt to eliminate items that directly reflect symptomatic improvement.<sup>28</sup> Neither of the alliance measures in the early sessions of therapy was associated with intake measures, indicating that the alliance is not a function of pretreatment symptomatology. This finding supports the discriminant validity of both measures of alliance and is consistent with the report of Gaston et al.,<sup>29</sup> who similarly found a lack of relation between the Hamilton Depression Scale and the CALPAS in a group of elderly depressed patients.

Nevertheless, lower drug use in the previous week was found to be associated with relatively better alliance at session 5, although not at session 2. Because this finding was consistent across both the CALPAS and the HAq,

and because the CALPAS has not been criticized as reflecting early improvement, it is our impression that the present results reflect the relation between alliance and outcome. This finding is consistent with Fenichel's<sup>30</sup> observation that greater cocaine use is associated with poor alliance because drug abusers' involvement with the addictive substance minimizes meaningful involvement with people.

It may be presumptuous on our part to expect that alliance measures will be completely independent from early symptomatic improvement, since patients are likely to feel better about the therapist (increased alliance) when they experience the therapist as helpful and symptoms are relieved. Moreover, being helped is likely to generate the expectation that additional help may be forthcoming. Therefore, the best one can hope for in terms of developing measures of alliance is to minimize items that manifestly reflect early improvement. In the present study we have shown that the pattern of associations between the HAq-II and early symptomatic improvement is no different from the pattern of relations between the CALPAS-P and early symptomatic improvement. Further, because alliance is sometimes related to early symptomatic improvement, this covariation has to be partialled out as Gaston and colleagues did when predicting outcome.<sup>29</sup>

The initial results on the validity of the

TABLE 5. Correlations between HAq-II and CALPAS subscales and total filled out by patients and therapists at sessions 2, 5, and 24

Scale	HAq-II					
	Session 2		Session 5		Session 24	
	Patient ( <i>n</i> = 197)	Therapist ( <i>n</i> = 200)	Patient ( <i>n</i> = 182)	Therapist ( <i>n</i> = 174)	Patient ( <i>n</i> = 92)	Therapist ( <i>n</i> = 87)
CALPAS scale						
Working Capacity	0.43	0.63	0.45	0.64	0.39	0.62
Patient Commitment	0.38	0.74	0.54	0.77	0.59	0.72
Working Strategies	0.57	0.75	0.69	0.68	0.71	0.70
Therapist Understanding	0.53	0.64	0.58	0.61	0.63	0.69
CALPAS Total	0.59	0.79	0.68	0.79	0.69	0.75

♦♦ Note: HAq-II = Helping Alliance questionnaire-II; CALPAS = California Psychotherapy Alliance Scales, Total Scale. All  $P < 0.001$ .

HAq-II are promising, and we recommend this version of the alliance measure as an improvement over the HAq-I. Nevertheless, there are several limitations. Although the overall patterns of results obtained in the present sample of cocaine-dependent patients do not seem to deviate from results in more "neurotic" samples,<sup>28</sup> further experience with the HAq-II in nonaddicted patients would increase confidence in the generalizability of the present findings. Moreover, the HAq-I and HAq-II have not yet been administered concurrently. Therefore, it cannot be concluded with confidence that the present version is, in general, more valid than the older one or, more specifically, that it reduces the inclination toward measuring early improvement. Nevertheless, data from this study suggest that

the HAq-II provides some improvement in the measurement of the alliance over the HAq-I, since the pattern of covariation between the HAq-II and other variables does not differ from the pattern of covariation between the CALPAS-P and other variables.

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TABLE 6. Correlations between alliance at session 2 and session 5, as viewed by the patient, and intake measures of psychiatric severity and concurrent drug use

Measure	CALPAS		HAq-II	
	Session 2	Session 5	Session 2	Session 5
Intake measures				
ASI PSYCH	0.04	0.04	0.05	0.12
<i>n</i>	235	203	192	173
ASI drug use	-0.01	0.07	-0.08	0.02
<i>n</i>	240	207	199	180
BDI	-0.09	0.04	-0.07	0.01
<i>n</i>	220	189	181	162
SIGH-D	-0.01	0.03	-0.10	0.03
<i>n</i>	231	202	191	175
GAF	-0.01	0.02	0.03	-0.02
<i>n</i>	235	205	195	177
BSI (GSI)	-0.05	-0.03	-0.03	0.03
<i>n</i>	225	194	183	165
Cocaine use	-0.05	-0.01	-0.09	0.02
<i>n</i>	244	212	200	181
Concurrent measure of drug use				
Times cocaine used <sup>a</sup>	-0.01	-0.21**	-0.09	-0.18*
<i>n</i>	214	189	179	163

◆ Note: HAq-II = Helping Alliance questionnaire-II. CALPAS = California Psychotherapy Alliance Scales, Total Scale. ASI = Addiction Severity Index; PSYCH = Psychiatric severity composite; Drug use = drug use composite; BDI = Beck Depression Inventory; SIGH-D = Structured Interview Guide for the Hamilton Rating Scale for Depression; GAF = Global Assessment of Functioning; BSI = Brief Symptom Inventory; GSI = global severity index; Cocaine use = cocaine use at intake for the last 30 days; Times cocaine used = during last week.

<sup>a</sup>Spearman rank correlation.

\* $P < 0.05$ ; \*\* $P < 0.001$ .

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## Appendix A. Helping Alliance Questionnaire, Patient Version

*Instructions:* These are ways that a person may feel or behave in relation to another person—their therapist. Consider carefully your relationship with your therapist, and then mark each statement according to how strongly you agree or disagree. *Please mark every one.*

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. I feel I can depend upon the therapist.	1	2	3	4	5	6
2. I feel the therapist understands me.	1	2	3	4	5	6
3. I feel the therapist wants me to achieve my goals.	1	2	3	4	5	6
4. At times I distrust the therapist's judgment.	1	2	3	4	5	6
5. I feel I am working together with the therapist in a joint effort.	1	2	3	4	5	6
6. I believe we have similar ideas about the nature of my problems.	1	2	3	4	5	6
7. I generally respect the therapist's views about me.	1	2	3	4	5	6
8. The procedures used in my therapy are <i>not</i> well suited to my needs.	1	2	3	4	5	6
9. I like the therapist as a person.	1	2	3	4	5	6
10. In most sessions, the therapist and I find a way to work on my problems together.	1	2	3	4	5	6
11. The therapist relates to me in ways that slow up the progress of the therapy.	1	2	3	4	5	6
12. A good relationship has formed with my therapist.	1	2	3	4	5	6
13. The therapist appears to be experienced in helping people.	1	2	3	4	5	6
14. I want very much to work out my problems.	1	2	3	4	5	6
15. The therapist and I have meaningful exchanges.	1	2	3	4	5	6
16. The therapist and I sometimes have <i>unprofitable</i> exchanges.	1	2	3	4	5	6
17. From time to time, we both talk about the same important events in my past.	1	2	3	4	5	6
18. I believe the therapist likes me as a person.	1	2	3	4	5	6
19. At times the therapist seems distant.	1	2	3	4	5	6