

Assessment of the Therapeutic Alliance: Reliability and Validity of the Working Alliance Inventory

Gonca SOYGÜT, Sedat IŞIKLI

Abstract

Objective: Recent trends in psychotherapy research indicate a growing interest on the conceptualization and assessment of the therapeutic alliance. Accordingly, this study aimed to examine the reliability and validity of the Turkish Working Alliance Inventory (WAI) (Horvath and Greenberg, 1989) Therapist and Client Forms.

Method: In the first phase of the study, the scale was presented to 5 judges, representing psychoanalytic, gestalt, and cognitive behavioral approaches, who then placed the subscale's items within the intended theoretical construct with a high degree of consensus. In the second phase, Therapists (N=21), from different theoretical traditions, filled out the WAI (Therapist Form) based on their sessions with their three patients (N=63). Patients also completed the WAI (Client Form). These evaluations by therapists and patients have been carried out for the third or following sessions.

Results: The internal validity of the scale was $\alpha = .96$ for the Therapist Form and $\alpha = .90$ for the Client Form. Factors analysis, conducted only for the Client Form, revealed that 3 factors were loaded in congruence with the original WAI. Considering the limited number of therapists participated in the study, factor analysis could not be conducted for the Therapist Form.

Conclusion: As preliminary evidence, our findings suggest that the validity and reliability of the Turkish WAI were at acceptable levels for clinical and research settings.

Key Words: The Turkish Working Alliance Inventory, Reliability, Validity

Development of the Therapeutic Alliance Concept

The therapeutic alliance was first conceptualized by Zetzel (1956) in the psychoanalytical tradition, to define the nature of the relationship between a therapist and a patient. In this sense, the fact that Zetzel developed the concept of the therapeutic alliance in the context of object relations has been considered as an important turning point (Kanzer, 1975; Fine, 1979; Greenson and Wexler, 1969). Aforementioned contributions to the concept therapeutic alliance early in the psychoanalytical tradition had great impact on the other psychotherapeutic approaches and current research issues. Specifically, the idea underlying the relationship between therapist and patient as an important component of therapeutic

change, which came into prominence in Roger's (1951) client-centered therapy, has been widely accepted by other therapeutic traditions. Another significant development was Bordin's (1979) transtheoretical reconceptualization of the therapeutic alliance by identifying three components. The first component includes an agreement between the therapist and patient on the task. The second component includes the agreement on the goals and anticipated outcomes. Finally, the third component involves the affective bond, which refers to mutual trust and acceptance.

As can be seen, Bordin's transtheoretical perspective focused on the importance of the interpersonal relationship factor in all therapeutic processes, in terms of effectiveness, independent of technical- and theory-based dif-

Received: 21.12.2006 – Accepted: 27.09.2007

Acknowledgments: We would like to thank for the important contributions to our study to our post-graduate students who had been studying in HU Psychology Department between 2003 and 2006; our colleagues who had shared their opinions and suggestions with peer review in different steps of our study; and therapist participants who made this study possible.

Author Notes: 1) This study was granted by H.Ü-BAB 03G009 and TÜBİTAK-SOBAG104K08. 2) In the course of the study, the Ethics Code of Turkish Psychological Association (TPA) was grounded on in terms of the ethical principals. Additionally, an official approval was obtained from Hacettepe University Faculty of Medicine, Medical, Surgical and Medicine Research Ethics Committee in the frame of mentioned projects.

Gonca Soygüt psik, e-mail: goncab@hacettepe.edu.tr

ferences. Subsequently, psychotherapy research focused on both therapist's and patient's variables contributing the therapeutic alliance. And the robust finding that the therapeutic alliance might be the best predictor of therapeutic outcome was considered to be a turning point in psychotherapy research (Hartley, 1985; Horvath and Greenberg, 1989; Horvath and Symonds, 1991; Martin et al., 2000). The therapeutic alliance became to be seen as a quintessential variable (Goldfried, 1988; Kiesler and Watkins, 1989; Gaston, 1990; Wolfe and Muran et al., 1994; Castonguay et al., 1996; Kiesler, 1996; Krupnick et al., 1996; Gaston et al., 1998; Castonguay and Beutler; 2006).

Assessment of the Therapeutic Alliance

The aforementioned theoretical progress increased the importance of assessing the therapeutic alliance. Thus, various therapeutic alliance instruments have been developed, including the California Psychotherapy Alliance Scale (CALPAS) (Marmar et al., 1989), Penn Helping Alliance Rating Scale (HAR) (Morgan et al., 1982), Vanderbilt Therapeutic Alliance Scale (VTAS) (Hartley and Strupp, 1983; Fenton et al., 2001), and Working Alliance Inventory (WAI) (therapist, observer, and client forms) (Horvath and Greenberg, 1989). A study that compared the predictive ability of 2 therapeutic alliance scales in short-term cognitive behavioral therapy (Safran and Wallner, 1991) reported that the CALPAS and the WAI (client forms) could predict change. Additionally, when compared to the WAI, the CALPAS was observed to predict the effectiveness on a wider spectrum. Another study investigating the prediction characteristics of the 6 therapeutic alliance instruments mentioned above, besides relatively low levels of overlap between the therapist and client forms, the results did not reveal any advantage of one scale over another, in terms of the psychometric properties in the session forms evaluated by an observer (Fenton et al., 2001). Among the instruments mentioned, only the CALPAS Psychotherapy Alliance Scale has a Turkish version (Öztan, 1995). The internal consistency of the subscales, varies between 0.32 and 0.85 for the therapist form, and 0.71 and 0.89 for the client form.

The aim of the present study was to investigate the psychometric properties of the Turkish WAI, which is grounded on the Bordin's conceptualization of the therapeutic alliance. In the following section we summarize the original study and information related to the development of the inventory.

The Working Alliance Inventory (WAI)

The WAI, which is based on Bordin's transtheoretical conceptualization, was created by Horvath and Greenberg (1989). Pre-study revealed that the reliability coefficients varied between 0.85 and 0.88 for the subscales of the client form, and varied between 0.68 and 0.87 for the subscales of the therapist form. Cronbach's alpha coefficients were totally 0.93 for the client form and 0.87 for the therapist form. In the second study, the participants consisted of 31 patients being treated with time-limited therapy based on the Gestalt two-chair technique. The findings indicated that there was a significant correlations between the WAI task subscale, and some outcome related variables (correlation coefficients were varied between 0.55 and 0.68). The third study was an extended replication of the first study in which 25 therapist-client dyads, representing different theoretical approaches, were the participants of the study. According to the index of item homogeneity, the reliability value was .89 for goals, and .92 for tasks and bonds. Cronbach's alpha coefficient was .93 for totally. Consistent with previous results, the authors indicated there was a positive and significant correlation between the WAI and effectiveness. The reviewed studies showed that the reliability of the WAI was at acceptable levels (Horvath and Greenberg, 1989). On the other hand, the relationship between the WAI, and relational variables and therapeutic effectiveness assessments observed in the 1st and 3rd studies were also interpreted as a support for the convergent and discriminant validity. Besides, the authors considered the analysis results of predictor variables as support for the predictive validity of the inventory. Among some other psychometric studies on the WAI, the confirmatory analysis results of Hatcher and colleagues (1995) confirmed the three factors found in the both therapist and client forms. In addition to that, the explanatory factor analysis in the cognitive psychotherapy process put forward a two-factorial structure asserting that the goal and task subscales were grouped under one factor, and the other factor was the bond factor (Andrusyana et al., 2001). In a study conducted by Stiles and colleagues (2002), the relationship was in the expected direction observed between the WAI and Agnew Relationship Measure (ARM) supporting convergent validity of the WAI. Similarly, Hanson et al., 2002 reported that the inventory had a strong level of reliability ranging from 0.79 and 0.97.

As it is seen, the comprehensive studies investigated the psychometric properties of the WAI pointed out that the inventory was able to assess the alliance concept and three sub-dimensions at an acceptable level. In other

words, conceptualization of the therapeutic alliance in the inventory seems to reflect Bordin's transtheoretical perspective. It has been observed that the WAI is among the most common instrument in psychotherapy outcome and process studies. As stated before, the main purpose of this pre-study was to adapt a therapeutic alliance assessment instrument to Turkish, as one of the relational variable planned to investigate within the scope of a series short-term cognitive psychotherapy study, which will be conducted in the following period. In addition to that, the observations pointing out that the WAI can be used as an instrument to assess the supervision relationship, contribute to extend the application areas of this inventory. This adaptation study was conducted by investigating the psychometric properties of the WAI on the Turkish sample because among the present alliance scales the WAI was found to be appropriate for the mentioned purposes.

METHOD

Pre-Study

a. Translation Study

The pre-translation of the WAI- therapist and client forms done by three doctorate students, were reviewed by a group of 6 clinical psychology doctorate students, including these three students. The final version agreed upon was presented to a judge group consisted of five specialists from different theoretical background who had at least 15 years experience in the field. The judges were asked to evaluate the original and Turkish form in terms of the translation congruity. They were also asked to examine the scale in terms of language use and comprehensibility using a standard form, in addition to express their suggestions. Besides, the clients having psychotherapy from the therapists who were in the study group, were given the the WAI client form in a closed envelop and asked to give feedback about the comprehensibility of the items. The inventory was finalized based on feedbacks from the judges and clients.

b. Content validity

The inventory was presented to a judge group consisted of five specialists from different theoretical background (2 cognitive-behaviorists, 2 psychodynamic psychotherapists and 1 Gestalt approach therapists) who had at least 15 years experience in the field, and asked which item referred to which therapeutic alliance dimension (e.g. three subscales: Task, Goal and Bond). The data showed that a complete agreement was ensured

over 27 items, besides 80% agreement on 5 items, 60% agreement on 2 items, 40% agreement on one item, and 20% agreement on another item was obtained.

In order to identify the agreement level in the judge group for the whole scale, Intraclass Correlation Coefficient with Absolute Agreement definition was calculated for the data obtained from 5 judges. This analysis showed that the agreement between the judges was quite higher than the acceptable level ($r=0.70$, $p<0.001$).

Main Study

a. Participants

The sample of the study consisted of two sub-groups. The first group, which was composed of the clients, was reached via 21 therapists working in Ankara and Istanbul. This group consisted of 63 individuals had various problem areas. The second sub-group of the sample included 21 therapists. The sociodemographic variables that belong to the client group are presented in Table I, and the variables that belong to the therapist group are shown in Table II.

b. Data Collection Instruments

Working Alliance Inventory (WAI)

As the detailed information about the WAI was already presented in the introduction section, only the structural characteristics of the scale were summarized in this section. The inventory, consisted of 36 items is based upon Bordin's (1979) conceptualization of therapeutic alliance, and includes three subscales: Task, Goal, and Bond. Scores can be calculated separately for each dimension and for the entire scale. Each subscale consists of 12 items rated on 7-point Likert scale. The psychometric studies showed that the scale had a valid and reliable structure (Horvath and Greenberg, 1989; Horvath and Symonds, 1991). The scale has three different forms: Client Form, Therapist Form, and Observer Form. In this study, the client (WAI-CF) and therapist forms (WAI-TF) were examined. The statements in the client and therapist forms are the same. Some items in the scale are inversely stated; an increase in the score after recoding is an indication of an increase in therapeutic alliance. The exemplary items of the scale's client and therapist forms and sampling style were presented in Table III and IV.

Demographic Information Form

In order to obtain the socio-demographic informa-

Table I. Sociodemographic variables of the clients (N= 63).		
Variable	Frequency	Percentage (%)
Gender		
Female	40	60.1
Male	23	34.8
Marital Status		
Married	11	62.1
Single	41	16.7
Divorced	11	16.7
Longest time lived place		
Big city	46	69.7
Town	12	18.2
Small town	4	6.1
Village	1	1.6
Education		
High school	11	16.7
University	36	54.5
Master-doctorate	16	24.2
Previous counseling service		
Yes	38	57.6
No	25	37.9
	Mean	SD
Age	29.7	8.9

tion of the participants, the researchers developed two different information forms. The client form included questionnaire items related to age, gender, education level, in addition to five items related to the quality of the psychotherapy service they were having and the effectiveness of this service. The possible relationship between response given to these five items and the WAI scores were thought to provide additional support for the criterion-related validity. Besides the demographic questions, the therapist form included some questions related to theoretical background the therapist was most affiliated with in the psychotherapy practice.

PROCEDURE

In line with the purpose of the main study, 21 therapists (see Table II) working in different official institutions and private centers were given the scales and asked to apply the WAI- Therapist and Client forms in the sessions following the third session of any psychotherapy process they were performing. The forms were sent all together to the coordinators of the related centers in closed envelopes, and they were collected in the same way. Therefore, the therapist-client dyads were identified with the coding system on the forms, and the confidentiality of their identity information was ensured. The necessary information related to the confidentiality and the aim of the study was informed on the front page of the forms. The therapists applied to the clients, who previously gave an oral inform consent, the inventory via closed envelopes. The forms were filled after the completion of a particular session. Accordingly, each therapist evaluated 3 forms related to the sessions carried on by 3 clients; thus the analysis was conducted on 63 dyads in total.

Statistical Analyses

The statistical analyses were conducted using the related sub-commands of SPSS 9.05 in the computer environment. The Cronbach's alpha internal consistency and item sum score correlation coefficients were calculated for the reliability analyses. In order to determine the factorial structure of the scale, the principal components analysis was conducted using the varimax rotation. Intraclass correlation coefficient with absolute agreement definition analysis was used to identify intrajudge agreement level; the Pearson product-moment correlation coefficient was used to evaluate the criterion-related validity.

RESULTS

The results are presented in two sections. In the first section, the results concerning the reliability of the scale are displayed, and in the second section the results regarding the validity of the scale are presented.

Reliability

Internal Consistency

In order to assess the reliability of WAI-TF and WAI-CF, in other words the levels of being free of measurement error, the internal consistency levels of the whole scale items and sub-factor items of both forms were ana-

Table II. Sociodemographic variables of the therapists (N= 21).

Variable	Frequency	Percentage (%)
Gender		
Female	16	76.0
Male	5	24.0
Occupation		
Psychologist	12	60.0
Psychiatrist	4	20.0
Psychological Counselor	4	20.0
Education		
Master	10	50.0
Doctorate	6	30.0
Specialty in Medicine	4	20.0
Theoretical Approach Affiliated with*		
Cognitive-Behavioral	7	
Client-Centered	1	
Behaviorist Therapy	2	
Gestalt Therapy	2	
Psychoanalytical Psychotherapy	3	
Existential Therapy	1	
Eclectic Approach	3	
Integrative	4	
	Mean	SD
Study period	12.7	7.3

*More than 1 option chosen. w

lyzed. For that purpose, the Cronbach's alpha internal consistency coefficients were calculated for both of the forms and subscales. Besides, the item sum score correlations were examined for each item as an additional support for the reliability, and the results are presented in Table V.

The analysis showed that the internal consistency coefficients calculated for the client form was 0.90, and 0.78, 0.81 and 0.74 respectively for the subscales. These

results pointed to the high internal consistency level of the scale. Similarly, the internal consistency coefficient that was 0.96 for the therapist form, and 0.83, 0.94 and 0.87 respectively for the subscales showed that the scale had high internal consistency. As the item sum score correlations were higher than the cut off point 0.20, it is possible to assert that both of the two forms had high internal consistency.

Construct Validity

a. Factor Analysis

In order to assess the construct validity of the scale, the items belonging to the WAI-CF were analyzed using principal component analysis with the varimax rotation to check whether the scale conserved its original factorial structure. The results of this analysis are summarized in Table VI.

The factor analysis results revealed that 10 "bond", 10 "goal", and 6 "task" sub-factor items were emerged as in the original factorial structure. It was also observed that 1 item (item 1) was not loaded on any factor.

Depending on the overlap between the emerged factor patterns in this study and the pattern of the original scale, the correlation analysis results of the subscales scored according to the suggestions in the original form are presented in Table VII. As it is seen in this table, the significant correlation values ($r = 0.47-0.93$, $P < 0.001$) between all the subscales were interpreted as a support for the construct validity of the inventory.

b. Criterion-related validity

In the direction of the additional analysis to the construct validity, the correlations between the subscales were calculated by asking the participants about the quality of the psychotherapy service they were having via demographic information forms. As it is presented in Table 8, all the correlation coefficients except two were in the expected direction and significant. This result was considered as an additional finding that supported the construct validity of the scale.

Discussion

In overall evaluations, it is possible to assert that the findings of the reliability and validity analyses of the Turkish Working Alliance Inventory were at acceptable levels.

In terms of the reliability analysis, the reliability coefficients obtained for the total scale score were statistically

Table III. The Working Alliance Inventory (client form). Make your evaluation about the statements after reading each statement by putting (x) in one of the seven boxes in the right hand side.

	Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always
1. I feel uncomfortable with my therapist. (Bond)							
2. My therapist and I agree about the things I will need to do in therapy to help improve my situation. (Task)							
3. I am worried about the outcome of these sessions. (Goal)							

significant. Similarly, internal consistency coefficients of the subscales for both the client and therapist forms were at a statistically significant level. At this point, the findings related to the reliability supported the studies conducted with the original form (Horvath and Greenberg, 1989; Hanson et al., 2002), and pointed to the acceptable levels of the reliability. It was observed that the items belonging to the Turkish version of the form displayed an interpretable pattern with each other in general. Additionally, the items on the basis of task, goal, and bond subscales as proposed in the original form also displayed an interpretable pattern with each other. Only three items in the client form of the scale (11th, 14th, and 36th items) exhibited relatively low coefficients. This finding might be related to the insufficient sample size, and to the fact that the related items did not adequately reflect

the construct. The subsequent studies, the indicated items need to be investigated in terms of their psychometric properties.

As for the validity studies, the content validity assessed by agreement level of five judges in placing the items to three subscales. Findings pointed out a statistically significant agreement between the judges, as proposed by Horvath and Greenberg (1989) in the original form. Considering judges having different theoretical backgrounds, it is possible to assert that the consistency between the judges might be interpreted as an indication of Bordin's transtheoretical perspective represented in the Turkish form as well.

The most important evidence related to the construct validity was obtained from factor analysis. According to

Table IV. The Working Alliance Inventory (therapist form). Make your evaluation about the statements after reading each statement by putting (x) in one of the seven boxes in the right hand side.

	Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always
1. I feel uncomfortable with my client. (Bond)							
2. My therapist and I agree about the things he/she will need to do in therapy to help improve his/her situation. (Task)							
3. I am worried about the outcome of these sessions. (Goal)							

Table V. The internal consistency coefficients for the entire scale and subscales, the item sum score correlations for the subscales, and the content of the client form.

Subscale	Item sum score correlation coefficients	
	Client Form	Therapist Form
Bond		
1. I feel uncomfortable with my therapist.	0.21	0.48
5. My therapist and I understand each other.	0.69	0.74
8. I believe my therapist likes me.	0.47	0.60
17. I believe my therapist is genuinely concerned for my welfare.	0.64	0.69
19. My therapist and I respect each other.	0.57	0.52
20. I feel that my therapist is not totally honest about his/her feelings toward me.	0.57	0.52
21. I am confident in my therapist's ability to help me.	0.73	0.67
23. I feel that my therapist appreciates me.	0.45	0.55
26. My therapist and I trust one another.	0.62	0.73
28. My relationship with my therapist is very important to me.	0.23	0.45
29. I have the feeling that if I say or do the wrong things, my therapist will stop working with me.	0.40	0.30
36. I feel my therapist cares about me even when I do things that he/she does not approve of.	0.14	0.21
Cronbach's Alpha	0.78	0.83
Goal		
3. I am worried about the outcome of these sessions.	0.57	0.68
6. My therapist perceives accurately what my goals are.	0.75	0.86
9. I wish my therapist and I could clarify the purpose of our sessions.	0.23	0.66
10. I disagree with my therapist about what I ought to get out of therapy.	0.53	0.82
12. My therapist does not understand what I am trying to accomplish in therapy.	0.52	0.80
14. The goals of these sessions are important to me.	0.19	0.39
22. My therapist and I are working towards mutually agreed upon goals.	0.72	0.78
24. We agree on what is important for me to work on.	0.72	0.85
27. My therapist and I have different ideas on what my problems are.	0.38	0.86
30. My therapist and I collaborate on setting goals for my therapy.	0.75	0.84
32. We have established a good understanding of the kind of changes that would be good for me.	0.51	0.80
34. I don't know what to expect as the result of my therapy.	0.46	0.42
Cronbach's Alpha	0.81	0.94

the results of the factor analysis conducted with the data coming from the client form, the factor pattern mostly overlapped with the original factor pattern of the WAI. Besides, this proposition is also supported with the fact that the item sum score correlation coefficients calculat-

ed for each subscale were higher than the acceptable cut-off points of 0.20 for 33 items of the inventory having 36 items in total. On the other hand, the observations regarding some items loaded under different subscales can be summarized as follows: Except two items belong-

Tablo V. Continued.

Task		
2. My therapist and I agree about the things I will need to do in therapy to help improve my situation.	0.45	0.65
4. What I am doing in therapy gives me new ways of looking at my problem.	0.44	0.76
7. I find what I am doing in therapy confusing.	0.38	0.47
11. I believe the time my therapist and I are spending together is not spent efficiently.	0.11	0.13
13. I am clear on what my responsibilities are in therapy.	0.38	0.68
15. I find what my therapist and I are doing in therapy are unrelated to my concerns.	0.69	0.70
16. I feel that the things I do in therapy will help me to accomplish the changes that I want.	0.63	0.67
18. I am clear as to what my therapist wants me to do in these sessions.	0.58	0.73
25. As a result of these sessions I am clearer as to how I might be able to change.	0.62	0.75
31. I am frustrated by the things I am doing in therapy.	0.55	0.56
33. The things that my therapist is asking me to do don't make sense.	0.49	0.45
35. I believe the way we are working with my problem is correct.	0.54	0.80
Cronbach's Alpha	0.74	0.87
Cronbach's Alpha (α) for the entire scale items	0.90	0.96

ing to task, goal, and bond subscales were loaded on the original factor; half of the items that belonged to task subscales were also loaded on this factor. It was indicated that two items that belonged to the task subscale were loaded on the bond subscale, and another two items that also belonged to the task subscale were loaded on goal subscale. On the other hand, it was observed that three items belonging to the goal subscales were loaded on the task subscale. Considering the insufficient sample size the fact that some items were loaded on other dimensions instead of original factors was at acceptable levels.

Some studies on the factorial structure of this scale reported non-overlapping factorial patterns than the proposed model. In a study that investigated the factorial pattern of the WAI-Client and Therapist forms in the course of a psychodynamic direction process, it was revealed that the task and goal dimensions were loaded together as a single dimension, and the bond dimension was emerged as a separate factor (Hatcher and Barends, 1996). Similarly, another study that examined the WAI-Short Form observer evaluation in the course of a cognitive-behaviorist therapy process found that the task

and goal dimensions were loaded together as a unique dimension, and the bond factor was loaded separately (Andrusyna et al., 200). These studies highlighted that the WAI could not always reflect the transtheoretical perspective proposed by Bordin and the three dimensional factorial structure. The sample of this study had a heterogeneous structure because the participants consisted of the therapists having different theoretical backgrounds. Consequently, it is not appropriate to compare the findings of the other studies having relatively homogeneous sample in the literature to the present study's findings. Additionally, the factorial pattern similar to the pattern of the original form might be explained with the various psychotherapeutic approaches presented in the present study's sample. At this point, it is difficult to make comments about the non-overlapping items. As mentioned before, this situation might be explained with the nature of our adaptation study that is the difference in profiles of the participants from the other studies. Namely, it is expected not to have the same structure, in other words to have some deviations in the scale structure in the studies which attempt to adapt a psychological testing instru-

Table VI. Factor analysis.

Item Number (Original Factor)	Bond	Goal	Task
17 (B)	0.73		
5 (B)	0.69		
23 (B)	0.66		
26 (B)	0.65		
15 (T)	0.63		
8 (B)	0.63		
20 (B)	0.60		
29 (B)	0.57		
36 (B)	0.50		
33 (T)	0.44		
7 (T)	0.44		
21 (B)	0.46		
19 (B)	0.41		
1 (B)			
10 (G)		0.73	
34 (G)		0.72	
12 (G)		0.70	
6 (G)		0.66	
22 (G)		0.61	
3 (G)		0.58	
9 (G)		0.53	

ment developed in one culture into another culture. At this point, we consider the therapeutic alliance as a universal concept in terms of all the psychotherapeutic processes. We, however, expect to see that the implications and patterns associated with this universal concept might differ in different therapeutic approaches and cultures. It is early to explain the partial differences in the factorial structure based on cultural differences since there is not enough empirical evidence on this subject in Turkey. As one of the limitations of this study, since there were not enough participants, we are unable to conduct factorial analysis for the Therapist form. However, it should be

Table VI. Continued.

Item Number (Original Factor)	Bond	Goal	Task
25 (G)		0.37	
30 (G)		0.36	
32 (G)		0.31	
31 (T)		0.46	
16 (T)		0.46	
35 (T)			0.30
4 (T)			0.40
13 (T)			0.65
18 (T)			0.52
2 (T)			0.52
11 (T)			0.42
28 (B)			0.48
24 (G)			0.70
27 (G)			0.44
14 (G)			0.43
Variance Explained	%16	%15	%15

noted that the original WAI-Therapist form was developed as a parallel form of the original client form. To our knowledge, the psychometric properties of the therapist form of the original version also were not assessed. In other words, the factorial structure validity obtained for the original client form was generally accepted for the original therapist form as well. Finally, the findings related to the factorial structure of the inventory and item sum score correlation coefficients obtained for the items that made up the factors showed that the original factorial structure of the WAI could be conserved and might be used in the studies conducted in Turkey as in its original form.

In order to assess the criterion-related validity, the correlations between the subscales were calculated by asking the participants about the quality of the psychotherapy service they were having via demographic information forms. The correlation coefficients were significant and in the expected direction between the ratings related to the form mentioned and the WAI. Thus, findings might

Table VII. Correlations between WAI Subscales.

	Bond	Goal	Task
Bond	-	0.47*	0.64*
Goal	0.84*	-	0.70*
Task	0.84*	0.93*	-

The upper part of the diagonal shows the correlations of the Client Form, and the lower part shows the correlations of the Therapist Form, *P < 0.01

be interpreted as additional evidence, which points to the criterion-related validity.

When the limitations of the present study were generally evaluated, one of the limitations was the restricted number of participants. Another limitation was the possible biases that might have appeared because the psychological dimensions were measured using self-report instruments. Additionally, according to the psychometric qualification of the study that is the accessibility to a certain number of data, some information related to the natural psychotherapy processes were obtained outside the laboratory environment during the data collection process. For this reason, the controllability advantage of laboratory environment was limited in this study. On the other hand, the major limitation of this study was not to assess the predictive validity. As stated in the introduction section, therapeutic alliance was defined as the best predictor of the efficiency during the therapeutic change process. Therefore, by the nature of the inventory, the predictive validity of the Turkish form should be assessed in the future studies. For this reason, the WAI has been administered beginning from the third session to the last session, in a series of studies that we are conducting in

the context of psychotherapy process and outcome research design. At this point, it was not appropriate to conduct analysis for the predictive validity because of the limited sample size. Thus, it is thought that the findings presented in this study should be evaluated in the frame of the limitations mentioned.

In the base of our study, it is thought that the WAI, which was adapted to Turkish and expected to reflect a transtheoretical construct, is an instrument that can be used in psychotherapy studies. Additionally, our study is a beginning step as to psychometric properties of the inventory. Advanced psychometric analyses are needed to investigate the implementations of the inventory in Turkey. In the subsequent studies, the long-term psychometric analyses should be continued that would focus on evidence for the predictive validity. On the other hand, the observations that point to the critical importance of therapeutic alliance in terms of the effectiveness bring along a lot of exciting questions for the future studies. From this reason, the question of “what is the mechanism of therapeutic change?”, underlying therapeutic alliance, seems to remain one the most challenging issues for the psychotherapy researchers.

Table VIII. Correlation coefficients of some variables related to the session and subscales.

Variables	Bond	Goal	Task
The rationality of the service	0.28*	0.50*	0.12
The service's success in problem-solving	0.42*	0.52*	0.41*
The service's success in decreasing problems	0.37*	0.18	0.30*
Recommendation of the service to another person	0.28*	0.44*	0.30*
Satisfaction from the service on that day	0.48*	0.21*	0.16

*P < 0.05

REFERENCES

- Anndrusyna T, Tang T, DeRubeis R et al. (2001) The factor structure of the working alliance inventory in cognitive behavioral therapy. *J Psychother Pract & Res*, 10: 173-178.
- Bordin E (1979) The generalizability of the concept of the working alliance. *Psychother*, 16: 252-260.
- Castonguay L, Beutler L (2006) Principles of therapeutic change: a task force on participants, relationships, and techniques factors. *J Clin Psychol*, 62: 631-638.
- Castonguay L, Goldfried MR, Wiser S et al. (1996) Predicting the effect of cognitive therapy for depression: a study of unique and common factors. *J Consult & Clin Psychol*, 64: 497-504.
- Crits-Christoph P, Connolly M (1999) Alliance and technique in short-term dynamic therapy. *Clin Psychol Rev*, 19: 687-704.
- Fenton L, Cecero J, Nich C et al. (2001) Perspective is everything: the predictive validity of six working alliance instruments. *J Psychother Pract & Res*, 10: 262-268.
- Fine R (1979) *A History of Psychoanalysis*. New York: Columbia University Press.
- Gaston L (1990) The concept of the alliance and its role in psychotherapy: theoretical and empirical considerations. *Psychother*, 27: 143-153.
- Gaston L, Thompson L, Gallagher D et al. (1998). Alliance technique, and their interactions in predicting outcome of behavioral, cognitive, and brief dynamic therapy. *Psychother Res*, 8: 190-209.
- Greenson R, Wexler M (1969) The non-transference relationship in the psychoanalytic situation. *Int J Psychoanal*, 50: 27-39.
- Hanson WE, Curry KT, Bandalos DL et al. (2002) Reliability generalization of working alliance inventory scale scores. *EPM*, 62: 659-673.
- Hartley D (1985) Research on the therapeutic alliance in psychotherapy. American.
- Psychiatric Association (Ed.) *Psychiatric Update* (Vol. 4 pp.532-549). Washington, DC: American Psychiatric Association.
- Hatcher R, Barends A (1996) Patients view of the alliance in psychotherapy: exploratory factor analysis of three alliance measures. *J Consult & Clin Psychol*, 64: 1326-1336.
- Hatcher R, Barends A, Hansel G et al. (1995) Patients' and therapists' shared and unique views of the therapeutic alliance: An investigation using confirmatory factor analysis in a nested design. *J Consult & Clin Psychol*, 63: 636-643.
- Horvath A, Greenberg L (1989) Development and validation of the working alliance and outcome in psychotherapy: A meta-analysis. *J Counsel Psychol*, 38: 139-149.
- Horvath A, Symonds B (1991) Relation between working alliance and outcome in psychotherapy: A meta-analysis. *J Counsel Psychol*, 38: 139-149.
- Kanzer M (1975) The therapeutic and working alliances. *Int J Psychoanal Psychother*, 4: 48-73.
- Kiesler D (1996) *Contemporary interpersonal theory and research*. New York: Wiley.
- Kiesler D, Watkins L (1989) Interpersonal complementarity and the therapeutic alliance: A study of relationship in psychotherapy. *Psychother*, 26: 183-194.
- Krupnick J, Sotsky S, Simmens S et al. (1996) The role of the therapeutic alliance in psychotherapy and pharmacotherapy outcome: findings in the National Institute of Mental Health Treatment of Depression Collaborative Research Program. *J Consult & Clin Psychol*, 64: 532-539.
- Marmar C, Weiss D, Gaston L et al. (1989) Towards the validation of the California Therapeutic Alliance Rating System. *Psychol Ass*, 1: 46-52.
- Martin DJ, Graskie JP, Davis MK et al. (2000) Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *J Consult & Clin Psychol*, 68: 438-450.
- Morgan R, Luborsky L, Crits-Christoph P et al. (1982) Predicting the outcomes of psychotherapy by the Penn Helping Alliance Rating method. *Arch Gen Psychiat*, 39: 397-402.
- Muran C, Segal Z, Samstag L et al. (1994). Patient pre-treatment interpersonal problems and therapeutic alliance in short-term cognitive therapy. *J Consult & Clin Psychol*, 62: 185-190.
- Öztaş N (1995) Terapist ile hasta arasındaki terapötik ilişkinin farklı boyutlarda incelenmesi (Basılmamış Doktora Tezi) A.Ü. Sosyal Bilimler Enstitüsü. Ankara.
- Rogers C (1951) *Client-Centered Therapy*. Boston: Houghton Mifflin.
- Safran JD, Wallner L (1991) The relative predictive validity of two therapeutic alliance measures in cognitive therapy. *Psychol Ass*, 3: 188-195.
- Stiles A, Davis B (2002) Convergent Validity of the Agnew relationship measure and working alliance inventory. *Psychol Ass*, 14: 209-220.
- Wolfe B, Goldfried M (1988) Research on psychotherapy integration. *J Consult & Clin Psychol*, 56: 448-451.
- Zetzel E (1956) Current concepts of the transference. *Int J Psychoanal*, 37: 369-376.