

# Psychometric properties of the Spanish version of the Working Alliance Theory of Change Inventory (WATOICI)

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This Brief Report presents a study of the psychometric qualities of the Working Alliance Theory of Change Inventory (Spanish version). WATOICI's reliability coefficient based on the internal consistency is good. Results seem to suggest (a) that the theoretical structure of the instrument should be further refined, and (b) that *therapeutic alliance* may be a more unified construct than is usually thought of. While it is theoretically possible to divide it into different components, clinical research with psychotherapy patients seems to indicate that *goals, tasks, bond* and *theory of change* are closely related.

*Características psicométricas de la versión española del inventario de la alianza terapéutica y teoría del cambio.* Este artículo presenta un estudio de las características psicométricas de la versión española del Inventario de Alianza Terapéutica y Teoría del Cambio (WATOICI). La estimación del coeficiente de fiabilidad basada en la consistencia interna de la versión española del WATOICI se demostró buena. Los resultados parecen sugerir: (a) que la estructura teórica del instrumento debe ser revisada y refinada a fondo, y (b) que la alianza terapéutica puede ser un constructo más unificado. Teóricamente es posible diferenciar entre las subescalas de la alianza terapéutica, pero los datos indican que los ítems de las subescalas de objetivos, tareas, vínculo positivo y teoría del cambio están muy asociados.

Psychotherapy could not be conceived without the existence of a client-therapist relationship. The therapeutic meeting between patient and practitioner plays an essential role in the psychotherapeutic process. Psychotherapy researchers rate the relative contribution of relationship factors as accounting for 30% of the total change that patients make (Lambert, 1992). *Therapeutic alliance* has been identified as the main factor contributing to such psychotherapeutic relationship. Horvath and Greenberg (1994) explain that in the current notion of working alliance, «collaboration» between therapist and client is the key element. At its best, the working alliance provides a safe environment for clients to explore themselves and a relationship in which clients' «key relational issues» are defined. The role of therapeutic alliance in promoting and facilitating therapeutic change was initially highlighted by psychoanalytically oriented psychotherapists (for a review, see Bordin, 1994), but is nowadays acknowledged by most theoretical approaches. Bordin (1979) defined the working alliance as consisting of three components: agreement on overall goals, agreement on tasks that lead towards achieving these goals, and emotional bond between the therapist and client.

Thus, the construction and validation of scales and inventories designed to assess key dimensions of effective therapeutic relationships has been one of the goals of psychotherapy researchers in

cent decades. One of these questionnaires is the *Working Alliance Theory of Change Inventory* (WATOICI; Duncan and Miller, 1999).

The *Working Alliance Inventory* was developed by Horvath and Greenberg (1989). It is a self-report measure consisting of 36 items and three subscales of 12 items each representing three dimensions of working alliance (Bond, Goals, Tasks). A counselor and a client form are used to collect information regarding the reported strength of the working alliance. Horvath and Greenberg (1986) reported internal consistency estimates with alphas of .93 for the client total score and .87 for the therapist total score. The internal consistencies for the client sub-scales were reported as alphas of .90, .88, and .91 for task, bond, and goal respectively. It was also found to have good convergent and divergent validity using a multitrait-multimethod analysis. The original 36-item WAI is also available in a short form version (WAI-S), comprised of 12 items (Tracey and Kokotovic, 1989).

The WATOICI is a 17-item pencil and paper version of the well-established *Working Alliance Inventory* (WAI). The WAI (short version, Tracey and Kokotovic, 1989) was developed and validated in relation to Bordin's transtheoretical model of alliance (Bordin, 1994)—see Horvath and Greenberg (1986) for further information regarding the validation of the WAI. The shortened version of the WAI is a 12-item self-report measure that uses a 7-point Likert rating scale (1= never, 7= always) to yield both an overall score for alliance quality and three summed sub-scale scores (4 items per each sub-scale in the WAI short version):

- (1) *Bond*: the emotional bond of trust and attachment between patient and therapist. Some of the facilitative conditions that help to create such a bond are: mutual understanding

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between patient and therapist, a caring attitude on the therapist's side, and the patient's perception that the therapist likes him or her.

- (2) *Goals*: the degree of agreement concerning the overall goals of treatment. Thus, the client is aware that such goals are relevant and he or she identifies him or herself with the themes made explicit and implicit during the therapeutic process. The therapist has some direct or indirect evidence that the goals established in the therapeutic relationship are shared with and accepted by the client.
- (3) *Tasks*: the degree of agreement concerning the tasks relevant for achieving these goals. Both therapist and client feel that the tasks agreed upon during the therapeutic process are rational, reachable, and closely related to the therapeutic goals (Horvath and Greenberg, 1986).

Tracey and Kokotovic's (1989) factor analysis of the WAI yielded an alliance overall main factor and three other factors that accounted for the three alliance sub-scales. The WAI-S (short version) derived from this study and it yielded a Chronbach's alpha of .94. In the same study, the internal consistency reliabilities were .90, .84 and .88 for task, bond and goal scores, respectively (Tracey and Kokotovic, 1989).

Duncan and Miller (1999) added 5 items dealing with the agreement between patient's and therapist's *theory of change* to the reduced version of the WAI. This brief report presents the psychometric properties of the Spanish version of the WATOCI (see Table 1).

#### Method

Research participants were 102 adults (79 women and 23 men) receiving outpatient psychotherapy. The mean age for the participants was 30.0 years ( $SD = 8.74$ ). Their presenting complaints were: *anxiety* (41.7% of the sample); *mood disorders* (39.9%); and *interpersonal/relational difficulties* (17.5%). All of them completed the Spanish version of the WATOCI at the end of the third psychotherapy session.

#### Results

Instrument's coefficient of reliability based on the internal consistency assessed by Cronbach's Alpha is .93. The internal consistencies for the sub-scales were reported as alphas of .91, .85, .86, and .82 for task, bond, goal, and *theory of change* respectively.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity indicated that the factor model was appropriate. We also performed an exploratory Principal Component Analysis (with Varimax rotation), and it extracted three factors (eigenvalues over 1) with eigenvalues of 5.66 (first factor); 2.81 (second factor); and 2.59 (third factor). The three factors account for 65% of the total variance.

As can be seen in Table 2, the *first factor* is made up by a combination of (a) all items belonging to the *tasks* sub-scale; (b) two items belonging to the *goals* sub-scale, and (c) four items belonging to the *theory of change* sub-scale. The *second factor* is made up by a combination of (a) two items belonging to the *goals* sub-scale, and (b) one item belonging to the *theory of change* sub-scale. The *third factor* is made up by three of the four items belonging to the *bond* sub-scale. Thus, the first factor is made up of items belonging to all subscales, the second one is made up of some items belonging to the *goals* subscale and one belonging to the *theory of change* subscale, and the third one is made up of items belonging to the *bond* subscale.

Thus, it seems that the *tasks*, *goals*, *theory of change* subscales, and one item belonging to the *bond* subscale account for the first two factors, whereas three of the four items belonging to the *bond* subscale account for the third factor.

#### Discussion

The internal consistency reliabilities for the total score, and subscales were good and agree with Tracey and Kokotovic's results (Tracey and Kokotovic, 1989).

A closer look at the Principal Component Analysis results reveals that the Spanish version of the WATOCI does not fit well with the structure that could be expected from Bordin's (1994) theory of therapeutic alliance. Factors obtained in the analysis do not discriminate between items belonging to different subscales; items from all subscales are attributed to the first factor, items from two different subscales are attributed to the second one, whereas some items in the *bond* subscale are attributed to the third factor.

These results seem to suggest (a) that the theoretical structure of the instrument should be further refined, and (b) that *therapeutic alliance* may be a more unified construct than is usually thought of. While it is theoretically possible to divide it into different components, clinical research with psychotherapy patients seems to indicate that *goals*, *tasks*, *bond* and *theory of change* are closely related and are not orthogonal factors.

Thus, the results of this study are partially in agreement with those of the one by Tracey and Kokotovic (1989) mentioned before in which they reported finding a first factor made up of items belonging to all subscales. Our own results validate the notion that therapeutic alliance as assessed by the WATOCI is a coherent construct, but they also cast some doubts on the supposedly threefold structure of such a construct. Also, Duncan and Miller's (1999) addition of the «theory of change» sub-scale does not add any meaningful clarification to the structure of the previous WAI short version.

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*Table 2*  
Principal component analysis of the Spanish WATOCI results (rotation method: varimax with Kaiser normalization)

		Components		
Item number	Sub-scale	1	2	3
		Factor Loadings		
1	Tasks	.80	.33	
2	Tasks	.51	.38	.41
3	Bond	.23	.26	.85
4	Goals	.37	.65	
5	Bond	.71	.32	.26
6	Goals	.63	.26	.36
7	Bond	.32	.23	.83
8	Tasks	.78	.25	.15
9	Bond	.59	.15	.50
10	Goals	.42	.53	.14
11	Goals	.69		.32
12	Tasks	.75	.32	.30
13	Theory of Change	.72	.38	
14	Theory of Change	.76		.30
15	Theory of Change	.64	.39	.31
16	Theory of Change	.24	.73	.25
17	Theory of Change	.60	-.25	.25

Note: Values less than .1 have been omitted.

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