

The Validity and Reliability of The Brief-Hypomanic Attitudes and Positive Predictions Inventory-Turkish Version (Brief-HAPPI-TR)

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SUMMARY

Objective: There has been a great deal of interest in specific dysfunctional beliefs that may be associated with susceptibility to mania. The Hypomanic Attitudes and Positive Predictions Inventory (HAPPI) was developed by Mansell (2006) to identify such beliefs. The present study aimed to measure the psychometric properties of the Turkish version of the brief version of the HAPPI (Brief-HAPPI-TR).

Method: The study sample consisted of 115 outpatients with bipolar disorder (BD) and 103 healthy controls. Participants were administered the Brief-HAPPI-TR, Mood Disorder Questionnaire (MDQ), and Dysfunctional Attitudes Scale (DAS).

Results: The reverse-scored HAPPI items lowered the alpha coefficient and were therefore excluded from the total score. The remaining items had high internal consistency for the entire sample ($r = 0.84$), for the BD group ($r = 0.83$), and for the control group ($r = 0.86$). The test-retest reliability coefficient was moderately high ($r = 0.41$). Brief-HAPPI-TR scores were significantly correlated with MDQ and DAS scores. Finally, Brief-HAPPI-TR was able to differentiate between the BD patients and controls.

Conclusion: Brief-HAPPI-TR was observed to be valid and reliable for assessing hypomanic attitudes in Turkish BD patients in remission. In addition, we think that within the cognitive-behavioral paradigm this scale can be used to identify and treat dysfunctional cognitions in Turkish BD patients.

Keywords: Bipolar disorder, remission, dysfunctional belief, validity, reliability

INTRODUCTION

Adjustment to pharmacological treatment and extension of periods of remission are important in the treatment of the bipolar disorder (BD); as such, periods of remission are a time during which psychosocial interventions increase in importance (Lam et al. 2005, 2003). During remission psychotherapeutic interventions, including psychosocial education, cognitive-behavioral therapy, and group and family therapy, are beneficial. Treatment effectiveness research has shown that psychotherapeutic interventions improve compliance with pharmacotherapy, delay relapses, extend periods of remission, reduce residual symptoms, and enhance psychosocial

functioning and quality of life (Colom et al. 2009; Totterdell and Kellett 2008; Zaretsky et al. 2007; Ball et al. 2003; Lam et al. 2001; Scott et al. 2001); therefore, it is important for BD patients to recognize their symptoms during acute periods, to anticipate the onset of recurrence, and to differentiate between the two.

In recent years, the cognitive approach to BD has been studied by several investigators (Colom and Vieta 2007; Newman et al. 2002; Thomas and Bentall, 2002; Basco 2000; Lam et al. 1999). Mansell et al. (2007) introduced the integrative cognitive model, which suggests that extreme, conflicting, and personalized appraisals of changes in internal states play

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a significant role in mood swings. Fluctuations in internal states (emotional, cognitive, and physiological) are interpreted as intrusions into awareness (Mansell et al. 2007, p.518), and these interpretations can be extremely positive or negative. When fluctuations in internal states are appraised in an extreme manner, several vicious cycles occur. Then contextual information which is necessary to regulate these cycles cannot be processed. (Mansell et al. 2008). According to this model, individuals with BD interpret and analyze their internal states during periods of remission. During mood swings, behavioral responses are oriented to either increase the activation level and to control (ascent behaviors) or to decrease the activation level (descent behaviors) (Mansell et al. 2011). Additionally, BD patients behave in accordance with extremely positive (e.g. very ambitious) or extremely negative (e.g. critical) beliefs, ignoring responses from the social environment. Such environmental appraisals are generally experienced as a felt sense, such that a BP patient attempts autonomously to do his/her best to obtain social approval from whoever is perceived to be critical or over-controlling. These attempts at obtaining approval result in a person doing much better and in an increase in his/her activation. When activation is increased, perceiving feedback as a frustration-oriented threat can lead to a sense of loss of control (Mansell et al. 2011). Activating and deactivating appraisals are trait-like and are originated from early life experiences, but can change in response to subsequent life events. Some appraisals can occur as a result of behavioral responses as well. Mansell et al. (2007) suggest that particular underlying beliefs and particular environments contribute to the formation of symptoms in a complex way.

As a way to further evaluate the integrative cognitive model, the Hypomanic Interpretations and Positive Predictions Inventory (HAPPI) was developed by Mansell (2006) to identify cognitions that may play a role in the development of hypomania. HAPPI measures the existence of extreme positive or negative beliefs concerning internal states (cognitions, feelings, behaviors, physiological symptoms) that lead to mood swings and symptoms associated with the bipolar spectrum. The aforementioned symptoms range from euphoric mood and increased activation to dysphoria, anxiety, and irritability (Mansell et al. 2008). Mansell (2006) reported that attitudes and behaviors measured by the the inventory are seen only during acute episodes, yet BD patients are able to analyze these attitudes during periods of remission; therefore, HAPPI items examine the way a person behaves and thinks when they are aware of any change in their internal states (Alatiq et al. 2010).

HAPPI includes 5 subscales, each with high internal consistency: Self-activation; response style; other-positive; other-negative; self-catastrophic. The self-activation subscale measures extremely positive self-appraisals due to activation feelings and mood swings (e.g., *when I feel more active, I*

realize that I am a very important person). The response style subscale measures beliefs regarding cognitive and behavioral responses to activation feelings and mood changes (e.g., *I need to be the center of attention to enjoy myself*). The other-positive subscale measures extremely positive attitudes regarding how a person wants to be ideally viewed by other people (e.g., *if I am very special to everyone around me, then all my problems will be solved*). The other-negative subscale measures negative beliefs concerning other people and the quality of the relationships with these people in a state of high activation (e.g., *when I try hard to get what I want, other people try to stop me*). Finally, the self-catastrophic subscale measures catastrophic beliefs against activation feelings and mood swings (e.g., *when I feel agitated and restless, it means that I am about to have a breakdown*) (Mansell 2006).

The psychometric properties of alternative versions of HAPPI have been studied (Mansell et al. 2011, 2008; Alatiq et al. 2010; Dodd et al. 2010), such as the Brief-Hypomanic Attitudes and Positive Predictions Inventory (Brief-HAPPI), which is based on HAPPI (Mansell, 2006). Brief-HAPPI includes only the 25 highest ranked items from the 104-item HAPPI, according to effect size for the differences between BD and control groups (Mansell and Jones 2006), of which 10 items were rewritten as reverse-scored items. In addition 5 filler items were added to the scale to control whether observed differences are due to participants' general response tendencies. Mansell and Jones (2006) reported that BD patients had higher Brief-HAPPI total scores than controls and that after controlling for current manic and depressive symptoms, and previous hypomanic symptoms the between-group difference in mean total score persisted. A positive correlation was noted between Brief-HAPPI total score and current hypomanic symptoms. In this respect, Brief-HAPPI can be considered to measure hypomanic symptoms like irritability, increased activation, dysphoria, and paranoia.

The results of these studies indicate that Brief-HAPPI might be a useful tool for predicting BD symptoms. In addition, HAPPI was originally designed for therapeutic purposes (Mansell 2006); the inventory includes prediction statements about people's attitudes in the form of testable cognitions during therapy. HAPPI may help individuals with self-evaluation, and then to obtain a better understanding of themselves and their illness. As such, HAPPI can be used to help patients to adapt/acclimate to the therapeutic process. According to Mansell (2007), HAPPI items can be used to explore which dysfunctional beliefs should be addressed during psychotherapy.

In Turkey, there are limited number of assessment tools available for BD patients that can be used to inform psychosocial interventions; therefore, adapting such an inventory to Turkish is a necessary and important step in the assessment

of cognition in BD patients in remission, for idiosyncratic planning of cognitive-behavioral interventions, and for evaluating the efficacy of psychotherapy in BD patients. The present study aimed to measure the psychometric properties of the Turkish version of the brief version of HAPPI (Brief-HAPPI-TR).

METHOD

2.1. Participants

The study included 118 BD outpatients and 103 healthy controls. The clinical sample was recruited from the Mood Disorders Clinic of Erenkoy Mental Health, and Neurology Training and Research Hospital, in Istanbul, the Psychiatry Unit of Ulus Public Hospital, in Ankara and the Mood Disorders Clinic of the Psychiatry Department of Uludağ University, in Bursa. Inclusion criteria for the BD patients were as follows: 1. Diagnosis of bipolar I or II; 2. Remission for ≥ 8 weeks; 3. Receiving maintenance treatment. These criteria were satisfied based on reports by the clinicians at the aforementioned psychiatric departments. The control group consisted of volunteers from the community who were matched with the BD group in terms of age, gender, and level of education. All the controls and BD patients provided written informed consent to participate in the study. The demographic and clinical features of both groups are presented in Table 1.

2.2. Measures

2.2.1. The Brief-Hypomanic Attitudes and Positive Predictions Inventory (Brief-HAPPI)

HAPPI was developed by Mansell (2006) to assess distinctive cognitions leading to mood swings in BD patients, and Mansell and Jones (2006) subsequently created the brief version of the scale. Brief-HAPPI consists of 30 items: 25 statements concerning attitudes about hypomanic symptoms and 5 neutral statements used as filler. In all, 10 of the 30 statements are reverse-scored items (2, 7, 9, 10, 12, 15, 18, 23, 26,

and 30). Participants are asked to rate the level to which they believe each item using a 10-point scale (0: I don't believe this at all; 10: I believe this completely). Higher scores indicate more severe hypomanic attitudes.

Mansell and Jones (2006) reported that the internal consistency of the total scale was 0.81. ($\alpha = 0.86$ for forward items, $\alpha = 0.56$ for reverse items, and $\alpha = 0.05$ for the filler items). Brief-HAPPI scores were strongly correlated with Internal State Scale and Hypomanic Interpretations Questionnaire scores.

2.2.2. Mood Disorder Questionnaire (MDQ)

MDQ was developed to assess the lifetime history of hypomanic and manic symptoms, and to screen for bipolar spectrum disorders (Hirschfeld et al. 2000). The first section includes 13 statements that require yes/no answers and examines lifetime hypomanic symptoms. The 2nd and 3rd sections assess the types and results of the symptoms reported in the 1st section. Higher scores indicate a greater predisposition to mood disorders.

Hirschfeld et al. (2003) reported that the internal consistency of MDQ was 0.90, the sensitivity was 0.81, and the specificity was 0.65. Konuk et al. (2007) reported that the Turkish version had a specificity of 77% and sensitivity of 64%. The most appropriate cut-point was determined as 7.

2.2.3. Dysfunctional Attitudes Scale (DAS)

DAS was created by Weismann and Beck (1978) and adapted for use in Turkey by Şahin and Şahin in 1992 (cited in Savaşır and Şahin 1997). The 40-item self-report measures underlying beliefs, assumptions, and dysfunctional attitudes related to depression. Each item is scored on a 7-point Likert-type scale. Higher total scores are indicative of a greater number of dysfunctional attitudes. Cronbach's alpha for the Turkish version was reported to be 0.79, the mean item-total correlation was 0.34, and the split-half reliability was 0.72. Factor analysis of the Turkish DAS yielded 4 factors: perfectionist attitude, need for approval, independent attitude, and ambivalent attitude.

Table 1. Mean, standard deviation, skewness, and kurtosis values of Brief-HAPPI-TR

		n	Mean	SD	Skewness	Kurtosis
Brief-HAPPI-TR	BD Group	115	77.55	28.27	-0.195	-0.184
	Control Group	103	70.07	26.50	0.202	-0.337
	Total	218	74.02	27.64	0.00	-0.352
DAS	BD Group	115	146.27	33.86	0.047	-0.682
	Control Group	103	121.58	26.92	0.742	0.433
	Total	218	134.61	33.10	0.422	-0.516
MDQ	BD Group	115	10.39	4.53	-0.563	-0.530
	Control Group	103	5.92	3.70	0.111	-1.084
	Total	218	8.28	4.71	-0.027	-1.006

2.3. Procedure

2.3.1. Translation phase

Upon the approval of Dr. Warren Mansell—the developer of the Brief-HAPPI—the study protocol was approved by the Izmir University Ethics Committee. The Brief-HAPPI was translated into Turkish by 2 psychiatrists and 2 academicians with a Ph.D. in psychology. Back-translations were performed by 2 academicians from the Izmir University, Department of American Culture and Literature. Minor revisions were made and the final Turkish form was considered to correspond to the original scale.

2.3.2. Data collection phase

The scales were administered to the BD patients, who were receiving maintenance treatment at the previously mentioned clinics. Participants were selected when presenting for follow-up appointments. The psychiatrist who provided support for the research referred the patients to the researcher after completing the follow-up appointment. The researcher explained the study details to these patients and asked if they would be willing to participate. Those who provided informed consent were administered the Brief-HAPPI-TR, MDQ, and DAS in random order. Participants completed the inventories individually. The sequence of inventory administration was changed for each participant in order to eliminate the sequence effect. In order to determine the test-retest reliability of the scale, Brief-HAPPI-TR was re-administered to 24 patients that were receiving maintenance treatment at the Erenkoy Mental Health and Neurology Training and Research Hospital Mood Disorders Clinic 4 weeks after first completing the form.

RESULTS

3.1. Test of normality

In all, data for 2 BD patients with extreme values and 1 patient with an undefined diagnosis were removed; data for the remaining 115 BD patients and 103 healthy controls were used for further analysis. According to the test of normality (Kolmogorov-Smirnov, $\alpha > 0.05$), the distribution of the data was normal. Brief-HAPPI-TR skewness and kurtosis values are shown in Table 2.

3.2. Sample characteristics

Table 1 shows the characteristics of the total sample. There were not any differences in demographic characteristics between the two groups, except for level of education, which was higher in the control group than in the BD group, ($\chi^2(6) = 29.68, p < 0.001$). The clinical features of the BD group are also shown in Table 1. To determine if the difference in level of education between the two groups affected the results

Table 2. Patient demographic and clinical data

Demographic features	BD Group (n = 115)	Control Group (n = 103)	Total (n = 218)
Age	Mean ± SD	Mean ± SD	Mean ± SD
	39.36 ± 11.58	34.26 ± 7.94	36.95 ± 10.33
Gender	n (%)	n (%)	n (%)
Female	74 (64.3%)	74 (71.8%)	148 (67.9%)
Male	41 (35.7%)	29 (28.2%)	70 (32.1%)
Marital Status			
Single	51 (44.3%)	35 (58.3%)	86 (39.4%)
Married	51 (44.3%)	60 (58.3%)	134 (50.9%)
Divorced	13 (11.3%)	8 (7.8%)	26 (9.6%)
Level of Education			
Primary School	22 (19.1%)	6 (5.8%)	28 (12.8%)
Secondary School	15 (13%)	7 (6.8%)	22 (10.1%)
High School	43 (34.7%)	30 (29.1%)	73 (33.5%)
University	31 (27%)	39 (37.9%)	73 (32.1%)
Post-Graduate	4 (3.5%)	21 (20.4%)	26 (11.5%)
Clinical features	Months Mean ± SD		
Duration of illness	156.20 ± 104.3		
Duration of remission	14.04 ± 20.8		
		Number of past episodes Mean ± SD	
Manic	6.18 ± 11.16		
Depressive	7.25 ± 13.58		
Hypomanic	3.58 ± 4.3		
Mixed	10.5 ± 14.06		

of the further analyses, 60 BD patients were matched one-to-one with 60 controls in terms of age (± 3 years), gender, and level of education; comparison of these matched participants for the measures used in the study yielded similar results as the full data set did. As such, the full data set was presented.

3.3. Validity and reliability

3.3.1. Analysis of Brief-HAPPI filler items

The mean Brief-HAPPI-TR filler items score was significantly higher in the control group (35.19 ± 6.1) than in the BD group (32.76 ± 7.58) ($t_{(216)} = 2.589, p < 0.05$). In their original study Mansell and Jones (2006) did not observe a significant difference in the mean filler item scores between the clinical and control groups. As the difference between the mean filler items score in the present study might have been due to differences in the level of education or other demographic features, the filler items were excluded from subsequent analyses in order to prevent any confounding effects.

Table 3. Item-total correlations and Cronbach's alpha values when items were removed

Problematic Items	Item-Total Correlation	α	Problematic Items	Item-Total Correlation	α
Item 3	0.4694	0.4709	Item 2	-0.1471	.5643
Item 4	0.4755	0.4672	Item 7	-0.1944	0.5715
Item 5	0.4434	0.4797	Item 9	0.1814	0.5197
Item 8	0.2744	0.5068	Item 10	0.0882	0.5320
Item 11	0.5437	0.4648	Item 12	-0.2078	0.5687
Item 13	0.2433	0.5094	Item 15	-0.1505	0.5654
Item 14	0.0022	0.5470	Item 18	-0.0610	0.5526
Item 17	0.3933	0.4873	Item 26	-0.2375	0.5794
Item 19	0.2516	0.51	Item 30	-0.1054	0.563
Item 21	0.3984	0.4851			
Item 22	0.4540	0.4804			
Item 24	0.1622	0.5221			
Item 25	0.2507	0.5099			
Item 28	0.2799	0.5039			
Item 29	0.2133				0.5145

3.3.2. Internal consistency

Cronbach's alpha coefficient for Brief-HAPPI-TR was 0.53. Then, item-total correlation analysis showed that there were 10 items (2, 7, 9, 10, 12, 15, 18, 23, 26, and 30) with low and/or negative item-total correlations (Table 3).

After these 10 problematic items were removed, Cronbach's alpha coefficient for the entire study population was 0.84 (BD group: $\alpha = 0.83$; control group: $\alpha = 0.86$), which is considered as a satisfactory internal consistency value. As such, 15 items (3, 4, 5, 8, 11, 13, 14, 17, 19, 21, 22, 24, 25, 28,

Table 4. Item-total correlations for the 15-item Brief-HAPPI-TR and Cronbach's alpha values when items were removed

Non-problematic Items	Item-Total Correlation	α
Item 3	0.5353	0.8145
Item 4	0.5431	0.8138
Item 5	0.5728	0.8126
Item 8	0.4025	0.8231
Item 11	0.5890	0.8117
Item 13	0.3311	0.8281
Item 14	0.2062	0.8363
Item 17	0.4673	0.8192
Item 19	0.4074	0.8228
Item 21	0.4933	0.8175
Item 22	0.5332	0.8154
Item 24	0.4222	0.8221
Item 25	0.4628	0.8196
Item 28	0.4328	0.8214
Item 29	.3845	.8244

and 29) remained in the inventory (Table 4), and the remainder of the validity and reliability analyses were performed using these 15 items of the final version of Brief-HAPPI-TR.

3.3.3. Convergent validity

To evaluate the convergent validity of Brief-HAPPI-TR, correlations between Brief-HAPPI-TR, MDQ, and DAS were examined in the BD and control groups. The Brief-HAPPI-TR score had a strong correlation with the MDQ score ($r = 0.25$ in the BD group and $r = 0.48$ in the control group, $p < 0.01$) and DAS score ($r = 0.61$ in the BD group and $r = 0.51$ in the control group, $p < 0.01$). These findings are indicative of the convergent validity of Brief-HAPPI-TR.

3.3.4. Discriminant validity

To determine the discriminant validity of Brief-HAPPI-TR, the independent samples t-test was used to compare Brief-HAPPI-TR scores in the BD and control groups. The mean Brief-HAPPI-TR score in the BD group was 77.55 ± 28.72 , versus 70.07 ± 26.50 in the control group; the difference was significant ($t_{(216)} = 2.008$, $p < 0.05$). Brief-HAPPI-TR was able to differentiate between the BD patients and the controls. This finding is indicative of the discriminant validity of Brief-HAPPI-TR.

3.3.5. Test-retest reliability

Brief-HAPPI-TR was re-administered to 24 BD patients that were receiving maintenance treatment at the Erenkoy Mental Health, and Neurology Training and Research Hospital Mood Disorders Clinic 4 weeks after first completing the inventory. The test-retest reliability of the Brief-HAPPI was 0.41 ($P < 0.05$).

DISCUSSION

In contrast to the original study by Mansell and Jones (2006), neutral items were analyzed in the present study. There was a significant difference in the mean filler items score between the BD and control groups; the control group had higher scores on all filler items. Mansell and Jones (2006) reported that the aim of the filler items was to determine if general response tendencies might create a bias. The filler items have never been used in either the former or latter versions of the scale. It may be discussed that this difference between the two groups on the filler items, such as, how I dress is important to me, had no clinical implication. Differences in the level of education or other demographic variables between the two groups in the present study might be why there were differences in the filler items mean score; therefore, exclusion of the filler items was not expected to affect the measurement of hypomanic attitudes. In the present study the Brief-HAPPI-TR reverse-scored items lowered the internal consistency of

the scale, which is similar to Mansell and Jones' (2006) finding that the internal consistency of the reverse-scored items was lower than that of the forward items. They reported that these items assessed the absence of dysfunctional attitudes commonly observed during acute episodes. This might have made it difficult for the patients to understand the meanings of the items. The participants might have responded to the reverse-scored items in the same manner that they responded to the forward items. For instance, although a reverse item such as, *if I feel agitated and restless, it does not affect me a great deal*, was expected to be scored close to 0, it might have been scored close to 10, as a forward item. Based on the item analysis, the reverse items were removed from the Brief-HAPPI-TR to increase its internal consistency. In prospective studies the reverse items could be replaced by their original forward-wording version, as in HAPPI (Mansell, 2006), to determine if these items would work in Turkish samples.

Brief-HAPPI was created based on the long version and the highest item-total correlations, not its factor structure. As such, the predictive value of Brief-HAPPI is stronger than its representativeness; therefore, examination of the factor structure of Brief-HAPPI was not considered to be necessary by the developers of the inventory (Mansell and Jones 2006). But again, a closer look at the remained items would be useful to examine the associations of the items with theoretically driven factors of the integrative cognitive model. When the 15 that remained in the final version of Brief-HAPPI-TR were examined, 8 were determined to be about self-activation. This factor concerns extremely positive appraisals of increased activity and energy. These dysfunctional appraisals intensify activation symptoms and negatively affect situational responses (Mansell et al. 2007). Next, 3 of the 15 items concerned response styles, such as believing that the BD patient should be the center of attention to enjoy themselves. These response styles regarding hypomania, mania, and depression have also been identified in recent accounts (Alloy et al. 2010; Knowles et al. 2005; Thomas and Bentall 2002). The other 4 items concern the other-positive component of the integrative cognitive model, and include such statements as, *being special to others and being admired by others are important*, and, *when I find new ideas I must tell people about them so that I will be admired*.

An excessive need for approval and the desire to be admired by others have also been reported in BD by other researchers (Jones et al. 2005; Scott and Pope 2003; Scott et al. 2000). According to the integrative cognitive model, dysfunctional positive beliefs about other people cause BD patients to perceive the responses of others to be much below their own high expectations. On the other hand, BD patients are more inclined to think that other people are trying to stop them from getting what they want. Most of the items excluded from Brief-HAPPI-TR were related to response style, 3 concerned

other-positive, and 1 was about self-activation. The final 15-item Brief-HAPPI-TR was observed to adequately assess the self-activation component; however, it did not sufficiently assess response style, other-positive, and other-negative components of the integrative cognitive model. In addition, the self-catastrophic component of the model was not represented in the original form nor in Brief-HAPPI-TR.

Brief-HAPPI-TR was able to differentiate the BD patients and healthy controls, which is in agreement with both the original study and other researches on HAPPI (Alatiq et al. 2010; Mansell et al. 2008; Mansell 2006; Mansell and Jones 2006). In addition, this finding shows that more of the participants in the BD group had hypomanic attitudes than in the control group, even though the BD patients were in remission, which is consistent with reports of the presence of residual symptoms during periods of remission in BD patients (Paykel et al. 2006; Judd et al. 2002).

Regarding the convergent validity of Brief-HAPPI-TR, a strong positive correlation was observed between Brief-HAPPI-TR and MDQ scores in the BD group, which supports the integrative cognitive model proposition that extreme appraisals about changes in internal states contribute to mood swings (Mansell et al. 2008). The correlation between these two inventories in the control group was also strong, and as such we think that Brief-HAPPI-TR can be used to assess hypomanic symptoms. These findings are in agreement with those of Mansell et al. (2008) and Dodd et al. (2010), and indicate that Brief-HAPPI-TR can be used to diagnose BD in individuals that have not been previously diagnosed with a psychiatric disorder.

In addition, Brief-HAPPI-TR and DAS scores were also strongly correlated, indicating an association between hypomanic attitudes and dysfunctional attitudes related to depression. These findings are in agreement with those reported earlier (Goldberg et al. 2008; Lam, Wright and Smith 2004; Scott and Pope 2003; Scott et al. 2000; Scott 1995). Taken as a whole, these findings are considered to provide sufficient support for the convergent validity of Brief-HAPPI-TR. Furthermore, the present findings indicate that the inventory has good test-retest reliability. Participants with high first test scores also had high scores during the re-test administered 4 weeks later, showing that the scale provides consistent results over time.

A limitation of the present study is that the educational level was higher in the control group; however, it was unknown if this difference had any effect on the participants' comprehension and interpretation of the items of the scale. In future studies the most recent episode type in BD patients (manic, hypomanic, depressive, or mixed episode) should be taken into account, both to control within-group differences and to determine the residual effect of an episode on self-reported

cognition. Brief-HAPPI-TR could be used in prospective studies to compare BD patients with good and bad prognoses related to gaining insight about the nature of their illness. Moreover, longitudinal studies on the changes in hypomanic attitudes during different BD episode types may provide additionally relevant findings.

In conclusion, Brief-HAPPI-TR was observed to have good internal consistency, convergent and discriminant validity, and moderate test-retest reliability. These findings suggest that Brief-HAPPI-TR might be a valid and reliable instrument for assessing hypomanic attitudes in remitted BD patients in Turkey. These characteristics of Brief-HAPPI-TR may eventually make an important contribution to the treatment of BD in Turkey, especially to cognitive behavioral therapy and psychosocial interventions, and to the assessment of such interventions. Mansell (2006) designed HAPPI as a therapeutic scale. As it includes predictions concerning an individual's attitudes, these predictions may identify cognitions in BD patients that could be the focus of psychotherapy. For instance, by using the scale's other-positive and other-negative items, interpersonal relationships, how a BD patient positions him/herself in relationships, what kind of attributions, inferences s/he does, etc. can be examined. The scale's items relevant to response styles can be used in two ways. Firstly, cognitions associated with how a BD patient responds to changes in internal states can be examined and secondly, the consequences of his/her behaviors, the management of behavioral regulation, and the creation of a functional coping repertoire can be analyzed. Brief-HAPPI-TR might help BD patients to perform self-evaluation in an effort to increase their awareness of their illness, acute periods, and cognitive and behavioral differences between manic and depressive episodes. Furthermore, clinicians might use this scale to predict BP patients' attitudes on future mood swings, as BD patients have a tendency to resist changing these attitudes.

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