



# Turkish Adaptation of State Mindfulness Scale: Confirmatory Factor Analysis and Reliability Study

## *Durumluk Bilinçli Farkındalık (Mindfulness) Ölçeği'nin Türkçeye Uyarlanması: Doğrulayıcı Faktör Analizi ve Güvenirlik Çalışması*

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### ABSTRACT

Mindfulness-based approaches, which have been used in many fields in recent years, have been widely accepted especially in practices in psychology and psychiatry, and have been integrated into traditional treatment methods. In parallel with the positive effects of the concept of mindfulness on mental, spiritual and physical well-being, researches have also steadily increased and various scales have been developed to measure mindfulness which can be summarized as the mindful awareness of the moment by accepting one's experience without judgment. Some of these scales were adapted to Turkish in the last decade. Considering the extensive usage of the concept of mindfulness in health-related fields, this study aimed to introduce the State Mindfulness Scale into Turkish, as one of the important scales to be evaluated on a health-related theoretical and methodological basis. Accordingly, the source scale was translated into Turkish through the steps suggested by WHO. Confirmatory factor analysis (CFA) was performed for the validity of the scale. Cronbach alpha reliability coefficient, Item Total Score Analysis, Guttman reliability coefficients, Spearman-Brown confidence coefficients were evaluated and the findings regarding the internal consistency of the scale were used in terms of the reliability analysis of the scale. For CFA and other analyses, 345 students at Akdeniz University were included in the study. As a result of CFA, it was found that the 21 item 2-factor structure in the source scale was compatible with the target culture (X<sup>2</sup>/Sd: 3,41; RMSEA: 0,088; CFI: 0,95). The correlation reliability coefficients of the scale ranged from 0.484 to 0.743. The Cronbach alpha value of the first factor of the scale was 0.899, the Cronbach alpha value of the second factor was 0.728, and the Cronbach alpha value for the total score was 0.921. The findings show that the validity and reliability of the State Mindfulness Scale has been ensured and the scale has been successfully adapted to Turkish.

**Keywords:** Mindfulness, state mindfulness, mindfulness scale, mindful awareness

### ÖZ

Son yıllarda birçok alanda kullanılmaya başlanan bilinçli farkındalık (mindfulness) temelli yaklaşımlar özellikle, psikoloji ve psikiyatri alanındaki uygulamalarda geniş kabul görmüş ve geleneksel tedavi yöntemlerine entegre edilmiştir. Kişinin yaşadığı deneyime ilişkin yargılamadan ve kabullenerek anın farkındalığı olarak özetlenebilecek bilinçli farkındalık kavramının zihinsel, ruhsal ve fiziksel iyilik hali üzerindeki olumlu etkilerine paralel olarak araştırmalar da istikrarlı bir şekilde artmıştır ve bilinçli farkındalığın ölçülmesi için çeşitli ölçekler geliştirilmiştir. Bu ölçeklerin bir kısmı da son on yıl içerisinde Türkçeye uyarlanmıştır. Bu çalışmada, bilinçli farkındalık kavramının sağlıkla ilgili alanlarda yaygın bir şekilde uygulanması göz önüne alındığında, değerlendirilmesi daha sağlam bir teorik ve metodolojik temele oturtulması açısından önem taşıyan ölçeklerden biri olan Durumluk Bilinçli Farkındalık (Mindfulness) Ölçeği'nin (State Mindfulness Scale-SMS) Türkçeye kazandırılması amaçlanmıştır. Bu doğrultuda kaynak ölçek WHO'nun önerdiği adımlarla Türkçeye çevrilmiştir. Ölçeğin geçerliliği için doğrulayıcı faktör analizi (DFA) yapılmıştır. Ölçeğin güvenirlilik analizi için Cronbach alfa güvenirlilik katsayısı, madde toplam puan analizi, Guttman güvenirlilik katsayıları, Spearman-Brown güvenirlilik katsayıları değerlendirilerek ölçeğin iç tutarlığına ilişkin bulgulardan faydalanılmıştır. DFA ve diğer analizler için Akdeniz Üniversitesinde öğrenci olan 345 kişi araştırmaya dahil edilmiştir. DFA neticesinde kaynak ölçekte yer alan 21 madde 2 faktörlü yapının hedef kültür ile uyumlu olduğu bulgusuna ulaşılmıştır (X<sup>2</sup>/Sd: 3,41; RMSEA: 0,088; CFI: 0,95). Ölçeğin korelasyon güvenirlilik katsayılarının 0,484 ile 0,743 arasında değiştiği, ölçeğe ait birinci faktörün Cronbach alfa değerinin 0,899, ikinci faktörün Cronbach alfa değeri'nin 0,728, toplam puana ilişkin Cronbach alfa değerinin ise 0,921 olduğu sonucuna ulaşılmıştır. Bulgular, Durumluk Bilinçli Farkındalık ölçeğinin geçerlik ve güvenirliliğinin sağlandığını ve ölçeğin Türkçe'ye başarıyla uyarlandığını göstermektedir.

**Anahtar sözcükler:** Bilinçli farkındalık, durumluk bilinçli farkındalık, bilinçli farkındalık ölçeği, bilinçli farkındalık

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## Introduction

Today mindfulness is used in many fields, especially in psychology, as a concept based on the interaction of mind, body, and spirit that helps people manage their thoughts, emotions, and mental health. The origins of mindfulness come from Eastern philosophy and are mostly associated with the practice of mindfulness meditation. Mindfulness has derived from the term “sati” meaning “mindful awareness, attention and remembrance” and is based on Zen, Vipassanā and Tibetan meditation techniques as an important element of Buddhist traditions (Kabat-Zinn 2003). Mindfulness is also used as a meditation technique which is considered as a preventive strategy to increase mental well-being and to avoid the development of mental health problems by means of the insight gained through the mindful awareness of thoughts, feelings, bodily sensations, and the environment in every moment without engaging in any evaluation or judgment. However, mindfulness is much more than meditation and is a state of mindful awareness involving one’s mindful attendance in his/her experience in the present moment. On the other hand, meditation practice is a method used to develop mindful awareness (Baer 2003).

Mindfulness has been a basis for various psychotherapy techniques, models and programs used in psychology for the treatment of mental health problems (Harrington and Dunne 2015). The main approaches that are based on and empirically support mindfulness are as follows: Mindfulness-Based Stress Reduction Program (Kabat-Zinn), Dialectical Behavioral Therapy (Linehan), Acceptance and Commitment Therapy (Hayes Wilson and Strosahl) and Mindfulness-Based Cognitive Therapy (Segal, Williams and Teasdale).

Mindfulness is mostly associated with positive psychology and is accepted to be the primary aspect of psychological well-being (Brown and Ryan 2003, Kabat-Zinn 2005, Langer 2005,). The mindfulness state, helping to recognize routine thinking patterns and ingrained behaviors, may play an important role in increasing psychological and physical well-being and is a way of learning about how an individual should get in touch with directly to his/her life (Stahl and Goldstein 2019). Although the components and mechanisms of mindfulness are defined differently by various approaches, the common view among all is that mindfulness is positively associated with many aspects of psychological well-being, including happiness, positive emotions, life satisfaction, vitality, sense of autonomy, optimism, and self-regulation (Langer 2005, Brown et al. 2007, Shapiro et al. 2008). Additionally, there is consistent evidence clinically confirming the effectiveness of mindfulness interventions in reducing various psychological disorders, particularly rumination, neuroticism, depression, stress and anxiety in patients (Baer 2003, Grossman et al. 2004, Chiesa and Serretti 2010).

In literature, mindfulness is variously defined as a psychological process, a method or practice and an improvable skill (Langer 1989, Hayes and Wilson 2003, Kabat-Zinn 2003, Germer 2005). While Langer (1989) conceptualized mindfulness as a state of a high

level of engagement and awareness in the present moment and experiences, Kabat-Zinn (1994) defined it as consciously giving attention to the present moment without judging, evaluating or reacting. The primary goal of mindfulness is to develop the ability to recognize the automatic emotional response patterns which were ingrained in the past when they arise. Allowing these patterns and recognizing them each time allows for gradual acceptance and provides an opportunity for behavioral changes. Mindfulness helps to discover automatic behavioral patterns. Over time, individuals learn to recognize negative thoughts that come to their minds repeatedly. The individual realizes that he/she does not want the sensations that arise in her body, and discovers that most of the thoughts and behaviors are aimed at getting away from unpleasant and painful sensations (Vreeswijk et al. 2019). Bishop et al. (2004) defined mindfulness as an approach to increase mindful awareness and to respond skillfully to the mental processes that contribute to emotional distress and maladaptive behavior. Germer (2005) argues that mindfulness is the ability to notice what is happening right now. Baer (2003) states it as the non-judgmental observation of the internal and external stimulus flow. According to Hayes and Wilson (2003), it is the process of attending to subjective events with every moment, being willing to experience them as they occur, noticing and recognizing verbal rules without reacting to them, and associating them with one's own perspective.

Brown and Ryan suggest that attention and mindful awareness are the basic components of mindfulness. Mindful awareness is like a radar that works in the background of the mind, constantly scanning what is going on both inside and around the person. Attention is a more intense evaluation of current experience by focusing awareness on a particular stimulus. Various scales have been developed to measure mindfulness in line with the need for assessment methods to investigate the mechanisms of mindfulness related to psychological functioning. Most of them are retrospective self-report scales. An important limitation for these scales is that due to the experiential nature of mindfulness, measurement has to be made after the experience and self-report is based on self-perception (Sauer et al. 2013)..

Tanay and Bernstein (2013) developed the “State Mindfulness Scale” (SMS) in order to examine mindfulness as a dynamic mental state with high temporal and contextual resolution. This scale is a 21-item self-report scale designed to assess state mindfulness. It was designed to measure subjective levels of attention and mindful awareness of the present moment when bodily sensations and mental events are experienced in a certain context during a specific period of time (past 15 minutes) (Ruimi et al. 2019).

The State Mindfulness Scale is grounded in a two-level state mindfulness model based on traditional e Buddhist and psychological definitions of mindfulness (Bishop et al. 2004). The first level focuses on the objects of mindful awareness of one's current experience (recognition of what experience the individual attends to). This level includes two aspects of mindfulness: physical sensations (bodily sensations) and mental

events (mental objects containing emotions and thinking patterns). The second level focuses on the traits of mindfulness (recognition of how the individual attends to experience) as a metacognitive state. These traits include perceptual sensitivity to stimuli, deliberate attention to stimuli, willingness and curiosity to feel one's subjective experience, which are integral qualities of mindfulness as a unified mental state (Tanay and Bernstein 2013).

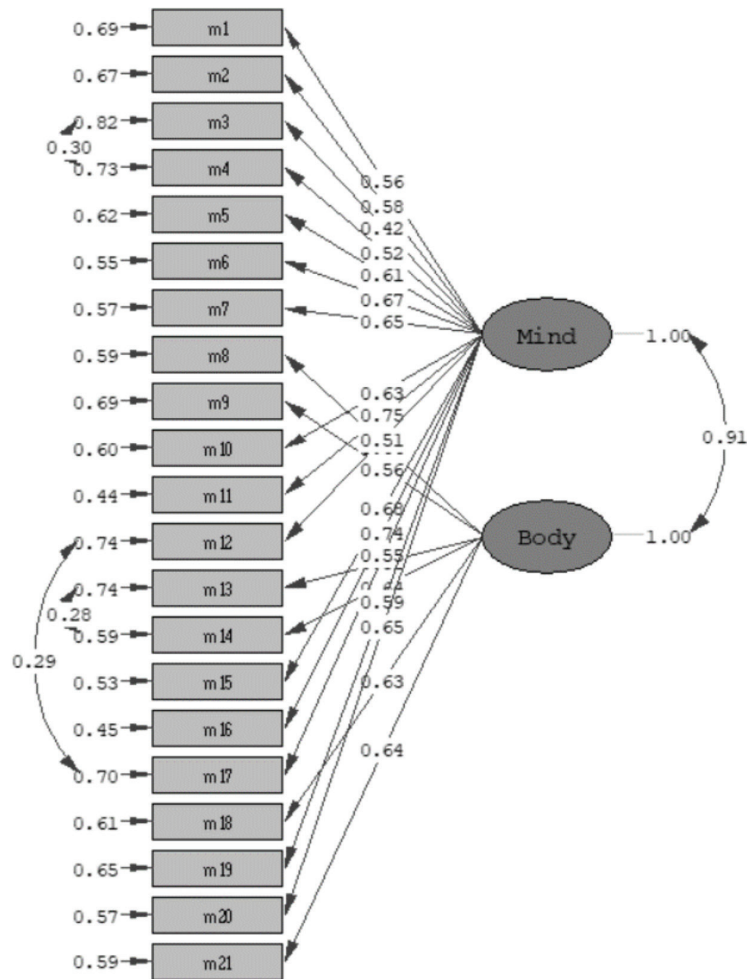
Today, mindfulness is used in many different fields including medicine, psychology and education. It is understood that the concept of mindfulness has existed since ancient times. Providing a valid and reliable measurement tool for mindfulness is of great importance for various studies to be conducted on the subject. The main purpose of this study is to ensure the validity and reliability of the State Mindfulness Scale and adapt it to Turkish. As a result of the study, it was evaluated that the scale, which was adapted into Turkish, would make an important contribution to the studies and literature on the concept of Mindfulness, so that the issues related to the concept could be addressed in a deeper.

## Method

The main purpose of the study is to adapt the State Mindfulness Scale to Turkish. For this purpose, firstly, permission and approval were obtained from the scale owner to adapt the scale to Turkish. Subsequently, the ethics committee approval was obtained from the Social and Human Sciences Scientific Research and Publication Ethics Committee of Akdeniz University, with the decision numbered 89, dated 01/03/2021. Afterwards, the Turkish form of the scale was obtained by following the translation and adaptation steps recommended by WHO (2021). Confirmatory Factor Analysis (CFA) was used for the validity of the source scale, Cronbach Alpha Coefficient, Guttman Split-half and Spearman-Brown reliability coefficients were evaluated for its reliability by means of Turkish form.

### Translation into Target Language

WHO (2021) argues that a scale adapted from the source culture to the target culture should practically function in the same way in the adapted culture. The important point of the adaptation is to achieve cross-cultural and conceptual traits rather than



Chi-Square=673.29, df=185, P-value=0.00000, RMSEA=0.088

**Figure 1.** First-level standardized CFA results for the 2-dimensional model of the State Mindfulness Scale.

linguistic/literary equivalence. To this end, forward translations and backward translations, a well-established method, should be used. The details of the translation made in accordance with the steps suggested by WHO (2021) are provided below.

#### **a. Forward Translation**

The source scale was translated by two different academics who have a very good knowledge of English and have a good command of subject and also the healthcare field. The two different forms obtained were compared in the next step in the expert panel.

#### **b. Expert Panel**

The purpose of the expert panel is to identify inadequate expressions/terms in the translation as well as any inconsistency between the forward translations and any other present or comparable former versions of the scale. In this study, an expert panel was held online with five academics working on healthcare, and translation of each item was discussed separately, and the translated form of the source scale was created.

#### **c. Back Translation**

The form obtained by translating from the source scale to the target language/culture was translated back into the source language. Possible differences in meaning were discussed by comparing each item in the source scale and in the form obtained after back translation.

#### **d. Pretest and Cognitive Interview**

CFA was conducted by applying the obtained form to a group of 50 students in order to perform the pre-test in the targeted culture. In addition, each item was discussed by 5 students, and their views were received upon what they understood from each item. As a result, minor amendments were made on two items that were thought to be incomprehensible, to ensure a better understanding

#### **e. Final Version and Documentation**

The final version of the scale was obtained after performing the aforementioned steps. In order to carry out various analyzes regarding the validity and reliability of the latest version obtained, the data collection phase was started by sending them to the participants via internet forms. Participants

CFA and other analyzes of the research were carried out with the participation of 345 active students (87.0% females, Mage=21.3, SD=3.2) at Akdeniz University. While determining the number of participants, the duration of the research and the minimum number of participants required for CFA were taken into account. Participants' ages are between 18-41, 2.6% of them are married and 99.1% are unemployed. In order to participate in the research, the condition of being an active student at Akdeniz University was determined. Those who are not active students at Akdeniz University were excluded from the evaluation.

In scale studies, it is recommended that the number of participants required for CFA should be determined as 5-10 times (Bentler

and Chou 1987, Bollen 1989) or 5-20 times (Stevens 2002) the number of items. Accordingly, the number of participants in this study was considered sufficient for the CFA of the 21-item State Mindfulness Scale.

#### **Measures**

A demographic information form with 10 questions was used in order to obtain basic information about the participants. The State Mindfulness Scale, developed and validated by Tanay and Bernstein (2013) with 21 items and two sub-dimensions, was translated into the Turkish language by following the translation and adaptation steps specified by WHO (2021). The source scale, a 5-point Likert type, has no reverse-scored item. In the study in which the source scale was developed, the internal consistency coefficient was determined to be 0.90 in the second level confirmatory factor analysis.

#### **Data Collection Process**

The data of the research were collected through the forms developed by researchers via internet. After the demographic information form and the Turkish form of the source scale were adapted to online forms, the form link was shared with the participants. The data were collected between 01/03/2021 and 30/04/2021. Before collecting data via internet forms, the participants were informed on the data collection page that they could leave the research at any time, that the data collected in the research would remain anonymous, the purpose of the research and the purpose for which the data would be used. According to this information, their consent was obtained and they were allowed to proceed to the data collection page.

#### **Statistical Analysis**

The data were analyzed by Lisrel 8.80 and SPSS 25. The normal distribution test was administered before analyzing the data. Accordingly, the Skewness and Kurtosis values of the collected data were specified between -1 and +1. Therefore, the data were concluded to distribute normally (Mardia 1970, Groeneveld and Meeden 1984, Joanes and Gill, 1998, Kim and White, 2004, Tabachnick et al. 2013).

#### **Validity**

Research validity refers to the extent to which a study answered the study question correctly, or the strength of the study results. For outcome measures such as surveys or tests, validity refers to the accuracy of the measurement. In this case, validity refers to how well the assessment tool actually measures the underlying outcome of interest. Validity is not a feature of the instrument itself, but of the particular purpose or interpretation of the assessment instrument in certain settings. Determining validity can be considered as constructing an evidence-based argument about how well a tool measures what (Sullivan 2011). Factor analysis is an approach used to evaluate construct validity. Factor analysis is also a procedure that informs the researcher about the extent to which a set of items measures the same underlying concept (variable) of a construct. Factor analysis assesses the

degree to which individual items on a scale really cluster around one or more concepts. Items designed to measure the same concept should be attributed on the same factor (LoBiondo-Wood and Haber 2017). In this study, while adapting the source scale to the target culture and language, CFA analysis was used to understand whether the structure in the source scale is compatible with the target culture and language. CFA is a statistical strategy specifically designed to identify and discover hypothetical structures resulting from infallible indicators (Hoyle 2000). CFA is also used to evaluate the psychometric properties of new and existing measures and to examine the effects of the methods (Harrington 2009). CFA is often used as a deductive approach to test whether some previously formulated theoretical models adequately explain the covariances between observed variables (Lance and Vandenberg 2002). In studies on construct validity, the sample size should be at a certain level. The Kaiser-Meyer-Olkin (KMO) Test provides information about the adequacy of the sample size. According to the sources, DFA can be performed if the KMO value is greater than 0.50. In this study, KMO test was performed before CFA analysis.

### Reliability

Reliability refers to whether an assessment tool produces the same results each time it is used with the same type of subjects in the same setting. Reliability essentially means consistent or reliable results. Reliability is a part of validity evaluation (Sullivan 2011).

In this study, the internal consistency of the scale was evaluated by evaluating the Cronbach Alpha Reliability Coefficient, Item Total Score Analysis, Guttman Reliability Coefficients, Spearman-Brown Confidence Coefficients for reliability analysis.

Cronbach's alpha is an internal consistency test and is often used to calculate correlation values between answers in your assessment tool (Bland and Altman 1997). Cronbach's alpha calculates the correlation between all variables in each combination; a high reliability estimate should be as close to 1 as possible (Sullivan 2011).

**Table 1. The details of the first-level standardized CFA results for the 2-dimensional model of the State Mindfulness Scale.**

Fit Indices	Value	Reference Values	
		Acceptable Fit	Good Fit
<b>X<sup>2</sup></b>	631.42	*	*
<b>SD (degree of freedom)</b>	185	*	*
<b>X<sup>2</sup>/SD</b>	3.41	<5	<2
<b>CFI</b>	0.95	>0.90	>0,95
<b>RMSEA</b>	0.088	<0.10	<0,08
<b>SRMR</b>	0.047	<0,1	<0,05
<b>IFI</b>	0.95	>0.90	>0,95
<b>PNFI</b>	0.82	>0.50	
<b>PGFI</b>	0.68	>0.50	

**Table 2. Information on Pearson product-moment correlation administered for item and total score correlation coefficients.**

Item Number	F1 (Mind)	F2 (Body)	Total	Item Number	Faktor 1 (Mind)	Faktor 2 (Mind)	Total
1	0.598**		0.571**	12	0.553**		0.581**
2	0.600**		0.563**	13		0.667**	0.542**
3	0.538**		0.484**	14		0.754**	0.649**
4	0.630**		0.575**	15	0.689**		0.689**
5	0.660**		0.621**	16	0.739**		0.733**
6	0.686**		0.663**	17	0.594**		0.612**
7	0.684**		0.661**	18		0.703**	0.634**
8		0.662**	0.625**	19	0.605**		0.589**
9		0.648**	0.567**	20	0.667**		0.688**
10	0.663**		0.649**	21		0.730**	0.627**
11	0.748**		0.743**	F1 (Mind)			0.975
				F2 (Body)			0.875
**p<0.01							

**Confirmatory Factor Analysis**

Kaiser Meyer Olkin (KMO) Test and Barlett's Test were administered for sample adequacy before CFA was conducted to ensure the construct validity of the scale. Accordingly, KMO value was determined to be 0,915 and Barlett value was specified to be 3185,74 (p=0,000). These results show that the sample size is suitable for CFA (Kaiser 1974, Cerny and Kaiser 1977).

According to the CFA results conducted by LISREL program, covariances were established between m12-m17, m13-m14, m3-m4 items as suggested by the program to obtain good fit values.

According to the first level standardized CFA findings on the 2-dimensional model of the State Mindfulness Scale, X<sup>2</sup>/Sd, CFI, RMSEA, IFI values have been concluded to be acceptable, and RMR, PNFI and PGFI values have been determined to be good fit values (Bentler 1990, Browne and Cudeck 1992, Cheung and Rensvold 2002). The model has been accepted as it is.

**Results**

**Reliability**

Regarding the reliability of the State Mindfulness Scale, the results on Pearson Product Moment Correlation Coefficients among items, factors and total scores were firstly obtained. Next, Cronbach Alpha, Guttman Split-Half, Spearman-Brown reliability coefficients were achieved by performing split-half reliability analysis. The results of the Cronbach Alpha reliability coefficients for reliability were also obtained.

The Item and Total Score Correlation Coefficients of the items in the State Mindfulness Scale were assessed, and it was found out that Correlation Reliability Coefficients between scale items and factors ranged from 0.538 to 0.754, Correlation Reliability Coefficients between the factors and the scale total score varied between 0.484 and 0.743, Correlation Reliability Coefficients

among F1 and F2 with the total score were between 0.975 and 0.875, respectively.

According to the item analysis results of the State Mindfulness Scale, the scale mean was found to be between 80,14 and 80,74 after item removal, while scale variance was determined to range from 111,820 to 115,747 after item removal, and item scale total correlation varied between 0,412 and 0,712 after item removal. On the other hand, item removal did not change the Cronbach Alpha value of the scale.

**Discussion**

In this study, the 21 items and 2 sub-dimensions of the State Mindfulness Scale were examined by CFA in order to determine whether the scale is valid in the target culture/language. As a result of the covariance among 6 items, good fit indices have been specified to be acceptable or to be among good fit indices (Bentler 1990, Cheung and Rensvold 2002). It is understood that similar values are taken into account as good fit values in various scale adaptation studies in the literature. The values obtained as a result of CFA are important in terms of showing that the structure in the source scale is compatible with the target scale (Ross et al. 2004, Dorman et al. 2006, Duyan et al. 2012, Enebrink et al. 2013, Derin et al. 2017, Ermis and Kırhoğlu et al. 2020, Bayraktar 2021, Ulutaş and Kırhoğlu 2021).

In order to determine whether the structure, which is valid in the target language and culture, is also reliable, the results of Pearson Product Moments Correlation coefficients among scale items, sub-dimensions and total score have been firstly assessed. Accordingly, it has been concluded that there have been high correlation coefficients among scale items and sub-dimensions, among sub-dimensions and total score, while there have been generally medium and high correlation coefficients among the factors and scale total score, and there has been only a poor

**Table 3. Information on the split-half reliability analyzes of the State Mindfulness Scale.**

	<b>F1 (Mind) 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 15, 16, 17, 19, 20</b>	<b>F2 (Body) 8, 9, 13, 14, 18, 21</b>	<b>Total</b>
Guttman Split-Half	0.835	0.716	0.831
Spearman-Brown	0.838	0.720	0.831
First Half Cronbach Alpha Value	0.825	0.630	0.864
Second Half Cronbach Alpha Value	0.835	0.725	0.874
Correlation Between Two Halves	0.721	0.563	0.711
N	345	345	345
Item Number	15	6	21

**Table 4. Information on the State Mindfulness Scale Cronbach alpha reliability analysis**

<b>SMS and Sub-Dimensions</b>	<b>Items</b>	<b>α</b>
F1 (Mind)	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 15, 16, 17, 19, 20	0.899
F2 (Body)	8, 9, 13, 14, 18, 21	0.728
Total	1-21	0.921

correlation coefficient between item 3 and total score. Correlation coefficients for all items have been found to be positive and statistically significant ( $p < 0.01$ ). In the assessment performed by considering the Pearson Product Moments Correlation coefficients, the Pearson Product Moments Correlation coefficients among scale items, sub-dimensions and total score may cause the scale to be interpreted as a reliable scale (Pearson 1931, Moran 1948, Puth et al. 2014).

According to the split-half reliability analyzes of the State Mindfulness Scale, the correlation coefficients between the two halves of the total score and sub-dimensions have varied between  $r = 0.721$  and  $0.563$ . Moreover, Guttman Split-Half, Spearman-Brown values have been concluded to be medium and good level. These results have led us to interpret the scale as a reliable instrument (Osburn 2000, Gliem and Gliem 2003, Yang and Green 2011, Eisinga et al. 2013, De Vet et al. 2017).

Moreover, Cronbach Alpha coefficients of the sub-dimensions of Mind and Body of the scale have been found to be  $0,899$  and  $0,728$ , respectively according to the results obtained in the Cronbach Alpha Reliability Analysis, whereas the Cronbach Alpha coefficient of the total score has been  $0,921$ . Cronbach's Alpha values that are higher than  $0.70$  indicate that the scale is reliable (Cronbach 1951).

When evaluating the data achieved as a result of the item analysis of the State Mindfulness Scale, removal of any item does not change the Cronbach Alpha value. This concludes that the reliability of all items of the scale is high and it is fir with its sub-dimensions (Gliem and Gliem, 2003, Raykov 2007, 2008).

It is considered that all participants answered each item on the form correctly and honestly. Required participants for CFA in the study are active university students. It is not possible to make a clear determination as to how much university students represent the whole society.

## Conclusion

The results of this study show that the structure of the source scale consisting of 21 items and 2 sub-dimensions is valid in the target language and culture. State Mindfulness Scale adapted to Turkish is important for the development and evaluation of a new measure of state mindfulness. Studies in the literature draw attention to the increasing importance of the use of mindfulness in many fields (Bishop et al. 2004, Shapiro et al. 2006, , Glomb et al. 2011). We hope that the findings obtained as a result of this study and the scale adapted to Turkish will contribute to the studies on mindfulness to a large extent.

**Table 5. Item analysis results of the State Mindfulness Scale**

	<b>Scale Mean After Item Deleted</b>	<b>Scale Variance After Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
1	80.24	115.75	0.522	0.916
2	80.17	115.63	0.512	0.916
3	80.74	115.20	0.412	0.919
4	80.70	113.35	0.512	0.917
5	80.37	114.23	0.573	0.915
6	80.11	114.61	0.624	0.914
7	80.51	113.03	0.614	0.914
8	80.15	114.57	0.580	0.915
9	80.44	113.78	0.505	0.917
10	80.48	112.60	0.598	0.914
11	80.15	113.33	0.712	0.913
12	80.14	114.54	0.527	0.916
13	79.99	115.67	0.487	0.917
14	80.16	113.94	0.605	0.914
15	80.23	112.69	0.647	0.913
16	80.35	111.99	0.696	0.912
17	80.33	113.27	0.557	0.915
18	80.61	111.82	0.576	0.915
19	80.17	114.93	0.538	0.916
20	80.45	112.20	0.643	0.913
21	80.46	112.07	0.569	0.915

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**Addendum. State Mindfulness Scale (Turkish version)****Durumluk Bilinçli Farkındalık (Mindfulness) Ölçeği****Instructions:****Please use the rating scale to indicate how well each statement below describes your experience in the last 15 minutes.****1=Hiç; 2=Çok az; 3=Biraz; 4=İyi; 5=Çok İyi**

No	İfade	1=Hiç	2=Çok az	3=Biraz	4=İyi	5=Çok İyi
1	İçimde ortaya çıkan farklı duyguların bilincindeyim.					
2	Hoş olan ve hoş olmayan hislere dikkat etmeye çalıştım.					
3	Deneyimlerimin bazılarını ilginç buldum.					
4	Deneyimimin birçok küçük ayrıntısını fark ettim.					
5	İçimde ne olduğunun bilincinde olduğumu hissettim.					
6	Hoş olan ve hoş olmayan duyguları fark ettim.					
7	İçinde bulunduğum andaki deneyimimi aktif olarak keşfettim.					
8	Vücudumda neler olduğunu fiziksel olarak açık bir şekilde hissettim.					
9	Vücut duruşumu değiştirdim ve bu sıradaki fiziksel hareketlerime dikkat ettim.					
10	İçinde bulunduğum anı tam olarak deneyimliyor olduğumu hissettim.					
11	Hoş olan ve hoş olmayan düşünceleri fark ettim.					
12	Duyguların gelip gittiğini fark ettim.					
13	Sıcaklık, serinlik, rüzgâr gibi çevremden kaynaklanan etkilerle çeşitli hisler fark ettim.					
14	Fiziksel hislerin gelip gittiğini fark ettim.					
15	Kendimi tetikte ve bilinçli hissettiğim anlar yaşadım.					
16	Kendimi içinde bulunduğum anla yakından bağlantılı hissettim.					
17	Düşüncelerin gelip gittiğini fark ettim.					
18	Kendimi vücudumla temas halinde hissettim.					
19	Zihnimden geçenlerin bilincindeydim.					
20	Düşünce kalıplarımı görmek ilginçti.					
21	Hoş olan ve hoş olmayan bazı fiziksel hisler fark ettim.					

**Scoring:**

- Items belonging to the “Mindfulness State of Mind” sub-dimension: 1,2,3,4,5,6,7,10,11,12,15,16,17,19,20
- Items belonging to the “Mindfulness State of Body” sub-dimension: 8,9,13,14,18,21ü
- There are no reverse scored items.