Focusing on the Past, Present, and Future: Psychometric Properties of the Temporal Focus Scale in Turkish Culture

Geçmişe, Bugüne ve Geleceğe Odaklanmak: Zaman Odağı Ölçeğinin Türk Kültüründeki Psikometrik Özellikleri

Ümüt ARSLAN [1], Burcu BAYRAKTAR UYAR [2]

[1]*Sorumlu Yazar, Doç. Dr., Eğitim Bilimleri Bölümü, Eğitim Fakültesi, İzmir Demokrasi Üniversitesi, Türkiye, umutarslanizmir@gmail.com/umut.arslan@idu.edu.tr (https://orcid.org/0000-0002-3611-9607)*
[2]*Yüksek Lisans Öğrencisi, Eğitim Bilimleri Bölümü, Eğitim Fakültesi, İzmir Demokrasi Üniversitesi, Türkiye, brcubayraktar@gmail.com, (https://orcid.org/0000-0003-4461-4269)*

ÖZ

Zaman Odağı Ölçeği (ZOÖ), Shipp, Edwards ve Lambert (2009) tarafından geçmiş deneyimleri düşünmenin, şimdiki zamanda yaşamanın ve gelecekteki olasılıkların insanların yaşamlarını nasıl etkilediğini açıklamak için geliştirilmiştir. Bu çalışmanın amacı, ZOÖ'yü Türk yetişkinler (n = 330) için uyarlamaktır. TFS ölçeğinin ayırt edici ve eşzamanlı geçerliliğinis ölçmek için Bilinçli Farkındalık Ölçeği, Pozitif ve Negatif Duygu Ölçeği ve Yaşamdan Memnuniyeti Ölçeği ile korelasyon katsayıları kullanılmıştır. Doğrulayıcı faktör analizi, uyum iyiliği indeksleri ve alt ölçekler için (geçmiş, şimdiki ve gelecek) iç tutarlılık katsayıları hesaplaması yeterli bulunmuş, üç faktörlü model doğrulanmıştır. Eşzamanlı ve ayırt edici geçerlilik analizleri, ZOÖ'nün Türk kültürüne uyarlanabilirliğini desteklemektedir. Bu çalışmanın eğitim ve psikolojik danışmanlık alanına katkıları tartışılmıştır.

Anahtar Kelimeler: Zaman odağı ölçeği, bilinçli farkındalık, geçerlik, güvenirlik, Türkçe, ölçek uyarlaması.

ABSTRACT

Temporal Focus Scale (TFS) is developed by Shipp, Edwards, and Lambert (2009) to explain how thinking past experiences, living in present and future prospects affect people's lives. The aim of this study to adapt TFS for the Turkish adults (n=330). The validity and reliability of the TFS was evaluated with several methods. Correlation coefficients with Mindful Attention Awareness Scale, Positive and Negative Affect Schedule, and Satisfaction with Life Scale are used to measure discriminant and concurrent validity of TFS scale. Confirmatory factor analysis, goodness of fit indexes, and the internal consistency coefficients calculation for the subscales (past, current, and future) were found to be sufficient, the three-factor model was confirmed, and concurrent and discriminant validity analyses supports the TFS's adaptability into Turkish culture and language. The implication of this study in the education and counseling field is discussed.

Keywords: Temporal focus fcale, mindfulness, reliability, validity, Turkish, scale adaptation.

INTRODUCTION

Time focus is a concept that determines how individuals incorporate their views about experiences in the past, current situations and expectations for the future into their attitudes, considerations, behaviors and emotion (Bluedorn & Denhardt, 1988; Shipp, Edwards, & Lambert, 2009). Being focused on the past facilitates helps sometimes learning new knowledge due to adherence to previous learning (Holman & Silver, 1998). On the other hand, being focused on mistakes, negativities or regrets in the past may negatively affect wellbeing (Sanna, Stocker & Clarke, 2003). Being focused on a current moment may encourage people to seize opportunities as well as causing them to be impulsive and risky (Zimbardo, Keogh & Boyd, 1997). Also, although being focused on the future is sometimes necessary to set goals and to achieve the necessary motivation and success, it may cause anxiety and pressure in individuals when it is more than necessary (Fried & Slowik, 2004). Research shows that wellbeing correlated with being past-focused negatively and correlated with being current-focused and future-focused positively (Rush & Grouzet, 2012; Shipp et al., 2009).

1.1. Temporal Focus, Mindfulness, Emotions and Life Satisfaction

The influence of temporal focus on individuals' lives is also often used in the literature to explain the concept of mindfulness (Ivtzan et al., 2016). People think about what they have lived and that they will live, and therefore their minds are constantly exposed to old thoughts and recent ideas. With mindfulness, a person can establish distance between these thoughts and himself or herself (Germer, 2004). Mindfulness can be defined as accepting and recognizing individuals as they feel negative emotions, without suppressing or trying to change or denying their emotions (Neff, 2003; Schonert- Reichl & Kimberly, 2010). Mindfulness, which is stated as the way to focus attention and awareness at the moment, enables to capture experiences moment by moment (Baer, 2003; Brown & Ryan, 2003; Cengiz, Serdar & Konuk, 2016). Mindfulness or current focus has a direct relationship with the focusing present moment and accepting that (Bishop et al., 2004; Schonert-Reichl & Kimberly, 2010) without being influenced by the events and emotions that occurred in the past and that will affect the future (Bishop et al., 2004). Therefore, mindfulness also is a helpful factor to regulate emotions (Koole, 2009), meet the needs of individuals such as relaxation and calm, cope emotions that may harm them (Deniz, Erus & Büyükcebeci, 2017) and increase life satisfaction (Rochlen, McKelley, Suizzo & Scaringi, 2008). A mindful person is aware of what his or her mind is busy with any thoughts (Cengiz et al., 2016).

Thoughts and emotions are integrated and direct each other (Seligman, 2007; Williams & Penman, 2014). Emotions are generally divided into two categories as positive and negative (Watson & Tellegen, 1985). Individuals with strong negative feelings have more seedy and unpleasant emotions such as stress, anger, and fear, whereas individuals with strong positive feelings show more emotions that give pleasure and vitality to the individual such as joy, happiness, mental alertness and energy (Watson, Clark & Tellegen, 1988; Watson & Pennebaker, 1989). Individuals can have different emotions in different time periods (Seligman, 2007). According to Seligman (2007), positive feelings such as joy, calmness and pride or negative feelings such as anger, pain and revenge can be felt in the past-focused situation. Likewise, positive feelings such as hope, trust and optimism can be felt in the future-focused situation, and positive feelings such as calmness, pleasure, enthusiasm and pleasure can be felt in the current-focused situation (Watson & Tellegen, 1985; Seligman, 2007). Mindfulness level is positively correlated with positive emotions and negatively correlated with negative emotions on all (past-current-future) time periods (Brown & Ryan, 2003). Increasing mindfulness helps to increase positive emotions felt by individuals, improve mental health of individuals to deal with struggles more effectively (Brown, Ryan & Creswell, 2007; Deniz et al., 2017) and increase life satisfaction (Deniz & Işık, 2010), which is individuals' positive assessment of their entire life under their standards (Diener, Emmons, Larsen & Griffin, 1985; Veenhoven, 1996). If individuals state that they are satisfied with their lives and involvement, they frequently have positive emotions and

rarely have negative emotions, this is a signal of their high life satisfaction. Positive emotions and satisfaction interact positively with each other for individuals similarly in all time periods (Deniz & Işık, 2010; Diener et al., 1985; Diener, Suh, Lucas & Smith, 1999).

1.2. The Importance and Purpose of the Study

In addition to the original study in the United States, Temporal Focus Scale (TFS) was adapted in several countries such as Australia, Canada, Germany, Northern Ireland, Japan, and United Kingdom (Chishima, McKay, & Cole, 2017; Chishima, Murakami, Worrell, & Mello, 2016; McKay, Percy, Goudie, Sumnall, & Cole, 2012; Shipp et al., 2009; Rush & Grouzet, 2012; Strobel, Tumasjan, Spörrle, & Welpe, 2013; Worrell, McKay, & Andretta , 2015; Zacher, 2014; 2016). Studies revealed that TFS is related to optimism, life satisfaction, positive affect, time perspective, time attitude, self-esteem, risk taking behavior, alcohol use, hedonistic well-being, and career adaptability (Chishima et al., 2016; Rush & Grouzet, 2012, McKay et al., 2012; Shipp et al., 2009; Worrell et al., 2015; Zacher, 2014).

The fact that individuals think about a certain time does not mean that they never think about other times. The main purpose in determining the time focus is not to classify the individuals according to a specific time they focus on, but to determine the time period in which they direct their attention and the effects of this attention to individuals (Shipp et al., 2009). Therefore, TFS measures the person's focus on which time mostly and it is determined that individuals are either past-focused, current-focused or future-focused (Shipp et al., 2009). When a person's time period is reflected in their behavior, this may affect how the individuals respond to change their focus. For example, an individual who is mostly current-focused and future-focused will devote more time to activities today and planning the future accordingly (McGrath & Rotchford, 1983; Zimbardo et al., 1999) or when a manager sees his employee and says something he or she is frustrated with the employee due to an employee's last month performance, this may cause the employee to pay attention on different time periods such as past or future (Gardner et. al., 1987; Shipp et. al., 2009). Developing TFS and adapting it to different cultures can make an important difference, in terms of measuring the impact of individuals' past, present, or future orientation on their attitudes, behaviors, and decisions (Bandura, 2001; Nuttin & Lens, 1985).

his study aims to examine the TFS's validity and reliability and adapt to the Turkish culture. Although the temporal focus in a certain time is an important factor and significant impact on the people's lives (Shipp et. al., 2009), there is no study on this subject with the population of Turkey. Therefore, adaptation of the TFS scale in Turkish will contribute to counseling, education and psychology field.

METHOD

2.1. Data Collection Tools

We used the Mindful Attention Awareness Scale (MAAS), Positive and Negative Affect Schedule (PANAS), and Satisfaction with Life Scale (SWLS) to research TFS's adaptation in Turkish. TFS is a three-factor scale with 12 items, MAAS includes 12 items in one factor, PANAS's 20 items are divided into two factors which are positive (10 items) and negative (10 items), and SWLS includes five items in one factor. In addition to these surveys, gender, age, and department were asked as part of demographic variables.

2.1.1. Temporal Focus Scale (TFS)

Shipp et al. (2009) developed TFS to measure past experiences, current lives, and future expectations. The scale is a 7-point Likert type ranging from 1 (never) to 7 (constantly) with three subscales: Past Focus (TFS-Past), Current Focus (TFS-Current), and Future Focus (TFS-Future). Each subscale includes four items. TFS-Past focuses on past experiences (Items: 1,6,9, & 11; eg. I replay memories of the past in my mind.), TFS-Current focuses on current activities (Items: 2,

4,8, & 10; eg. I focus in what is currently happening in my life.), and TFS-Future focuses on future expectations (Items: 3, 5, 7 & 12; eg. I focus on my future.). Confirmatory factor analysis showed a good model fit (RMSEA = .072 & CFI = .97) and coefficient alphas were .89 for TFS-Past, .74 for TFS-Current and .86 for TFS-Future in the original study (Shipp et al., 2009). In this study, coefficient alphas were calculated as .80 (TFS-Past), .81(TFS-Current), and .79 (TFS-Future).

2.1.2. Mindfulness Attention Awareness Scale (MAAS)

Brown and Ryan (2003) developed and Özyeşil, Arslan, Kesici and Deniz (2011) adapted to Turkish the MASS, which is a single factor scale and include 15 items (e.g., "I find myself preoccupied with the future or the past."). As the scores obtained from the 6-point Likert type scale ranging from 1 (almost always) to 6 (almost never) increase, the level of mindfulness increases. The internal consistency coefficient of the scale was .80, and test-retest reliability was .86. In this study, the Cronbach's alpha coefficient was found .83.

2.1.3. Positive and Negative Affect Schedule (PANAS)

Watson, Clark, and Tellegen (1988) developed and Gençöz (2000) adapted to Turkish the PANAS, which contains 20 emotional items that are evaluated according to the 5-point Likert type ranging from 1 (Very slightly or not at all) to 5 (Extremely). The PANAS includes 10 positive (eg. Interested) and 10 negative (eg. Distressed) emotional items and each emotion is scored separately. In the adaptation study of the scale, Cronbach alpha coefficients were .86 for positive and .83 for negative emotions (Gençöz, 2000). In this study, Cronbach's alpha coefficient was found .87 for positive and .84 for negative emotions.

2.1.4. Satisfaction with Life Scale (SWLS)

The SWLS was developed by Diener, Emmons, Larsen, and Griffin (1985) and adapted to Turkish by Yetim (1991). The SWLS contains five items which are evaluated according to the 7-Likert type ranging from 1 to 7 (1 = strongly disagree, 7 = strongly agree). In the adaptation study of the scale, the Cronbach alpha coefficient was .86, test-retest test consistency was found to be .73 (Yetim, 2003). The Cronbach's alpha coefficient was found .82 in this study.

2.2. Translation Process

Permission was obtained from one of the developer authors of the scale, Dr. Shipp, to translate the TFS into Turkish. First, three academicians who completed their master's and doctorate degrees in counselor education in the United States translated TFS into Turkish and reviewed translation with a Turkish Language expert. Second, the Turkish translation of the TFS was translated back into English by psychology in English graduate and bilingual both in English and Turkish. The back-translation of the TFS is emailed to Dr. Shipp for feedback. Dr. Shipp stated that (a) the five items are a word-for-word back translation, (b) the six items have minor changes in the back translation but these items' meanings are similar to original items, and (c) one item's back translation has difference comparing to the original item and it needs to be revised. The original of this item is "I think back to my earlier days.", the first Turkish translation is "Geçmişte yaşadığım günleri düşünürüm" and back translation is "I think days, which I have lived earlier." As a result of the author's feedback, the translation of this item revised as is "Geçmişte yaşadığım günler hakkında düşünürüm." and the back translation became "I think about days that I have lived earlier." Dr. Shipp confirmed the meaning of the second back translation of this item. Thus, the final version of the scale was decided (see Appendix).

2.3. Participants

2.3.1. Study 1

The original TFS in English and Turkish translation was administered to the students in the English Language Teaching Department (n = 40) in two weeks intervals (55% Female, 45% Male,

$M_{age} = 19.60$, SD = 1.41). The linguistic equivalence of the TFS was analyzed through the Pearson Product-Moment Correlation Coefficient test. Results showed a positive, statistically significant and moderate-level relationship between the total scores of students' English and Turkish forms in each sub-dimension (TFS-Past: r = .55, TFS-Current: r = .68, and TFS-Future: r = .70, p < .001).

2.3.2. Study 2

In the second and main study, a total of 330 undergraduate students (72% Females, 28% Males, M_{age} = 22.08, SD = 5.49) were participated. In the main study, four departments were selected randomly in a state university to administer surveys. Regarding department track, 35.0% (n = 115) reported studying in the education department, 25% (n = 82) studying in the law department, 21% (n = 68) studying in the business department, and 19% (n = 65) studying in the architecture department .

2.4. Procedure

In order to start the research, the ethics committee approval was obtained from the institution in which the researchers are affiliated. After ethics committee approval, the surveys have been uploaded to an online survey program. The names and communication information of the researchers, the purpose of the study, informed consent (volunteerism, confidentialism etc.), were included at the introduction of the survey. We randomly choose four departments (education, economics, architecture and law) at a public university. The volunteer faculty members who teach in these departments sent a survey link to their students for participation.

2.5. Analysis

The construct validity was tested with the Confirmatory Factor Analyses (CFA). The maximum likelihood estimation method was used for the CFA and some goodness-of- fit statistics were taken into consideration in the evaluation of the model (Byrne, 2006). Accordingly, we used Chi-square ($\chi2$), the ratio of Chi-square to the degree of freedom ($\chi2$ /sd), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA) for evaluation. Before analyzing CFA, multivariate normality and linearity assumptions were checked.After that, correlational analysis was conducted for concurrent and discriminant validity. SPSS and AMOS program was used in the analysis of the data.

FINDINGS

3.1. Confirmatory Factor Analyses

We used CFA to examine the construct validity of the TFS. In order describe data as a good fit (a) $\chi2$ / sd is suggested to be between two and five (Byrne, 2006; Hooper & Mullen, 2008), (b) Root Mean Square Error of Approximation (RMSEA) needs to be less than .08 (Hu & Bentler, 1999), (c) 0.90 of Goodness of Fit Index (GFI) is considered as a good model indicator (Tabachnick, Fidell, & Ullman, 2007; Waltz, Strcikland & Lenz 2010), (d) Adjusted Goodness of Fit Index (AGFI) is an index used to compensate for the deficiency of GFI test in large sample volume and is suggested to be above 0.90 (Munro, 2005), (e) SRMR (Standardized Root Mean Square Residual) values approach, it is understood that the tested model shows a better fit and is expected to be less than 0.08 (Wang & Wang 2012), and (f) CFI (Comparative Fit Index) shows that there is no relationship between the variables, the model established gives the difference from the absence model (null) and needs to be above .90 (Munro, 2005).

Table 1. Fit Indices Of The TFS Confirmatory Factor Analysis

	χ2*	χ2 /sd	RMSEA	AGFI	GFI	CFI	SRMR
12-Item	172.315	3.379	.09	,88	,92	.93	.10
11-Item (Removed Item 10)	127.073	3.099	,08	,90	,94	,95	.08
11-Item (Removed Item 9)	117.650	3.820	.09	.87	.92	.93	.10

Note: χ2 = Model ChiSquare, χ2 /sd = Test/Degrees of Freedom, RMSEA = Root Mean Square Error of Approximation, AGFI = (Adjusted) Goodness of Fit, GFI = Goodness of Fit, CFI = Comparative Fit Index, SRMR = Standardized Root Mean Square Residual, *p<0.001.

Our CFA examination results for TFS with 12 items did not suggest good model fit (χ2 [51] = 172.315, χ2 /sd = 3.379, RMSEA = .09, AGFI = .88, GFI = .92, CFI = .93, SRMR = .10). After our first examination, we reviewed the modification indicates and the literature again. First, CFA results showed both of Item 9 (.26) and Item 10 (.58) had lower scores compared to other items (Figure 1). Second, TFS was translated to different languages and widely used in several countries. Different cultures adapted TFS with some modifications. For example, McKay, Percy, Goudie, Sumnall, and Cole (2012) for the Northern Irish population and Chishima et al. (2017) for the Japanese population adapted TFS with 11 items without Item 10. Their TFS Model with 12 items did not work and they removed Item 10 after results of component loadings; then their model suggests good model fit.
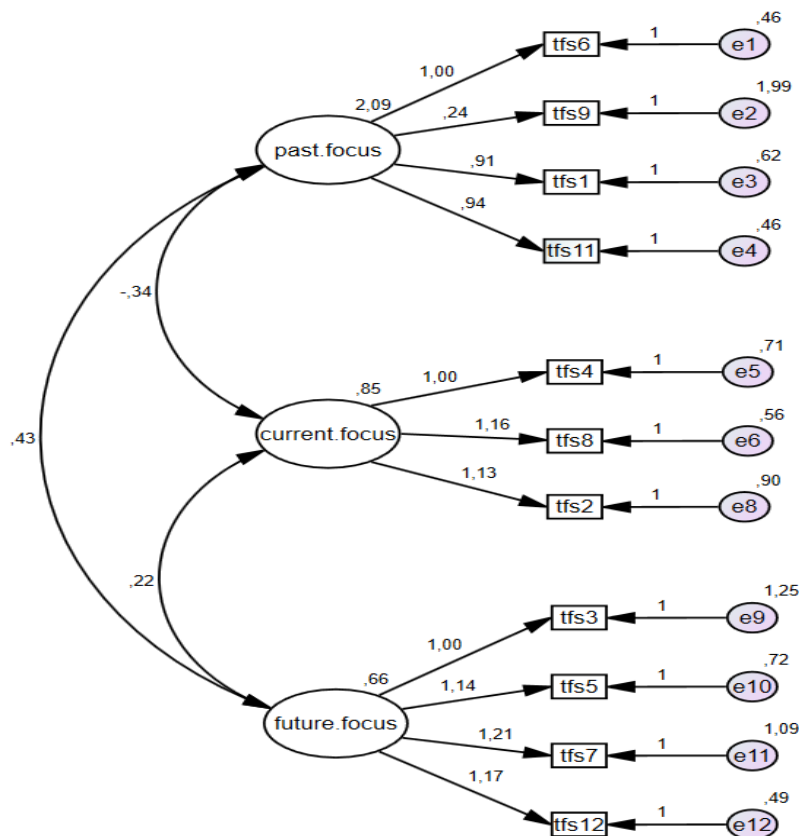

Figure 1. Confirmatory Factor Analyses Results

We have examined in both ways (removing Item 9 and Item 10) to find a good model fit TFS for Turkish population (Table 1). Results show if we remove Item 9, CFA results did not

suggest good model fit (χ2 [41] = 156.617, χ2 /sd = 3.820, RMSEA = .09, AGFI = .87, GFI = .92, CFI = .93, SRMR = .09). On the other hand, as you see in Figure 1, when we removed Item 10, we found similar results with Chishima et al. (2017) and McKay et al. (2012), and results suggested good model fit (χ2 [41] = 127.073, χ2 /sd = 3.099, RMSEA = .08, AGFI = .90, GFI = .94, CFI = .95, SRMR = .08). Without item 10, the CFA findings of TFS for Turkish emerging adults show acceptable results. We examined congruent validity and reliability test with 11-Item Model of TFS, and these results supported this new model (Table 1).

3.2. Reliability Analyses

In order to structural validity results, the internal consistency reliability of the 11-Item TFS model was calculated with Cronbach alpha coefficient (α). The internal consistency coefficient is .80 for the TFS-Past subscale, .78 for the TFS-Current subscale, and .79 for the TFS-Future subscale. The corrected item total correlations were ranged between .22 to .79 for the TFS-past subscale, .64 to .69 for the TFS-Current subscale, and .52 to .69 for the TFS-future subscale.

3.3. Concurrent and Discriminant Validity

Concurrent and discriminant validity are based on the assumption that the scale's dimension score, which concerns a particular area, is positively correlated with the same dimension, and negatively correlated with the opposite dimension of another similar scale (George & Mallery, 2003). TFS-Past, TFS-Current and TFS-Future factors were examined with mindfulness, emotion, and life satisfaction scales to evaluate the concurrent and discriminant validity. We used MAAS for calculate mindfulness, PANAS for the negative and positive emotions, and SWLS for the life satisfaction (Table 2).

Table 2. Bivariate correlation between Temporal Focus Scale and Other Scales

Measures	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) TFS-Past	1						
(2) TFS-Current	-.20***	1					
(3) TFS-Future	.62***	.10	1				
(4) PANAS - Positive	-.01	.36***	.19***	1			
(5) PANAS - Negative	.34***	-.33***	.12* -	.15**	1		
(6) MAAS	-.34***	.27***	-.14*	.18***	-.33***	1	
(7) SWLS	-.07	.39***	.20***	.28***	-.24***	.26***	1

Note: *** p< .001, ** p< .01, * p< .05

First, since the mindfulness scale measures the current focus (Brown & Ryan, 2003), a positive correlation between MAAS and TFS-Current (concurrent validity), and a negative correlation between MAAS and TFS-Past and TFS-Future was expected (discriminant validity). As expected, we found a positive correlation between MAAS and the TFS-Current (r= .27, p< .001), negative correlation MAAS and the TFS-Past (r= -.34, p < .001) and TFS-Future (r= -.14, p< .05). Second, thinking previous experiences increase negative emotions, therefore positive correlation was expected between PANAS-Negative and TFS-Past (concurrent validity). As expected, we found a positive correlation between PANAS-Negative and the TFS-Past (r= .34, p< .001). Also, we found, not unexpectedly, PANAS-Negative was negatively correlated with TFS-Current (r= -.33, p < .001). Third, thinking current and future increase positive emotions (Bajaj & Pande, 2016), therefore positive correlation was expected between PANAS-Positive and TFS-Current and TFS-Future (concurrent validity). As expected, we found a positive correlation between PANAS-Positive and TFS-Current (r= .36, p< .001) and TFS-Future r= (.19, p< .001). In results, we found also PANAS-Negative was also correlated with TFS-Future (r= .12, p< .05). Fourth, SWLS presents negative correlation with TFS-Past and positive correlation with TFS-Current and TFS-Future in the literature (concurrent validity; Shipp et al., 2009; Chishima et al., 2017). As expected, we found a positive correlation between SWLS and TFS-Current (r= .39, p< .001) and TFS-Future (r= .20, p< .001). However, the negative correlation between SWLS and TFS-Past (r= -.07, p> .05) was not statistically significant.

DISCUSSION, CONCLUSION AND SUGGESTIONS

In order to examine TFS's factor structure in a Turkish sample, this study investigated linguistic equivalence, confirmatory factor analyses, reliability, and concurrent and discriminant validity. Linguistic equivalence test scores between Turkish and English form of the TFS occurred statistically significant correlation. CFA results supported three sub-dimensions of TFS as past, current, and future. Also, CFA showed that 12-Item TFS did not suggest a good model fit. After we concentrated the results and literature, we realized 11-Item TFS (removed Item 10) suggests a good model fit with similar studies of TFS in Northern Ireland and Japan. Item 10 is problematic in Turkish TFS as well as Northern Irish and Japanese TFS. Item 10 is *'I think about where I am today.'* Even though Irish, Japanese and Turkish cultures differ from each other, participants' responses in these countries did not fit this item in the current focusing sub-scale of the TFS. There might be several reasons for eliminating Item 10. Besides cultures, findings of this study show current focus is highly related to mindfulness. Therefore, mindfulness mostly focuses on living today not thinking today (Kabat-Zinn, 2003). Thinking today could be related to think about past experiences and possible future plans. To sum up, the reliability analyses indicate that the final version of TFS with 11 items (removing Item 10) demonstrates good reliability.

Concurrent and discriminant validity analyses result also supports the TFS's adaptability into Turkish culture in order to relationships with similar measures and differences with opposite measures. First, a positive correlation between MAAS and the TFS-Current supports mindfulness definition, which is the acceptance of situations and emotions specific to the situation at the moment, without being influenced by past and future events (Bishop et al., 2004). At the same time, the main focus is on getting the attention of the individuals from the future and the past, and to raise awareness about the present (Kabat-Zinn, 2003; Schonert-Reichl & Lawlor, 2010). Therefore, the negative correlation between MAAS and the TFS-Past and TFS-Future supports the literature. Second, it is critical for human life in terms of time periods when the attention of individuals affects the behaviors and feelings shown (Bluedorn & Denhardt, 1988; Fried & Slowik, 2004) and therefore, individuals who still feel the impact of past mistakes and regrets develop more negative emotions in the present moment (Holman & Silver, 1998; Sanna et al., 2003). A positive correlation between PANAS-Negative and the TFS-Past shows parallel results with the literature. Also, many studies indicate that mindfulness causes to increase positive emotions and wellbeing and decrease negative emotions (Gu, Strauss, Bond & Cavanagh, 2015; Deniz et al., 2017; Rochlen et al., 2008; Sears & Kraus, 2009). Thus, TFS's negative correlation with PANAS-Negative and positive correlations with PANAS-Positive supports the literature. Third, thinking about the future is essential for individuals to set their goals and strive to achieve these goals, to achieve the necessary motivation to achieve success, but this may cause anxiety and pressure when it is more than necessary (Fried & Slowik, 2004). If the future-oriented thinking is not more than necessary, the fact that the individual is developing more positive feelings about the future supports a positive correlation between PANAS-Positive and TFS-Future. At the same time, if future-oriented thinking can cause anxiety if the individual's mind is too busy, PANAS-Negative is also correlated with TFS-Future. Fourth, life satisfaction shows the same results in the literature as PANAS-Positive. As individuals focus on the present and future, life satisfaction increases and life satisfaction decreases as we focus on the past (Deniz & Işık, 2010; Diener et al., 1985; Diener et al., 1999; Rochlen et al., 2008). A positive correlation between MAAS and the TFS-Current and TFS-Future supports these studies.

4.1. Conclusion and Implications of the Study

Consequently, 11-Item TFS consists of three sub-dimension was well fit for the Turkish population and can be used in studies. Thinking different times periods influences individuals' live and examining the time period help researchers in reasoning behaviors, attitudes, and other variables which are important factors in individuals personal, social, and academic development.

TFS can be an important measurement tool for researchers who want to research between time focus and other topics. Specifically, TFS-Current sub-dimension could be studied to measure topics related to mindfulness. TFS-Future could be used to be conducted in several areas including future plans such as career counseling and relationship expectations, and TFS-Past could be used to investigate individuals' early life experiences, stress, anxiety, and negative emotional sources.

4.2. Limitations and Suggestions

This study has its limitations. The generalizability of the study group is limited as (a) it consists of university students, (b) number of participants is lower thant Tabachnick and Fidell (2007) suggestion ($N = 330$), and (c) data were collected online and it is based on participants' responses. Participants in this study are enrolled a university in a western metropolitan city Turkey. For this reason, it is recommended that TFS, which has been adapted to Turkish, could be applied to different samples and to increase its generalizability in future studies.

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APPENDIX

Temporal Focus Scale Turkish From (Zaman Odağı Ölçeği Türkçe Formu)

No	Original Items	Turkish Translation	Back Translation
1	I think about things from my past.	Geçmişimdeki şeyler hakkında düşünürüm.	I think about things from my past.
2	I live my life in the present.	Hayatımı şimdiki zamanda yaşarım.	I live my life in the present.
3	I think about what my future has in store.	Geleceğimde neyin saklı olduğu hakkında düşünürüm.	I think about (what is hidden/what waits for me) in my future.

4	I focus on what is currently happening in my life.	Şu anda hayatımda neler olduğuna odaklanırım.	I focus on what is happening in my life right now.
5	I focus on my future.	Geleceğime odaklanırım.	I focus on my future.
6	I replay memories of the past in my mind.	Geçmişimdeki hatıraları aklımda yeniden canlandırırım.	I replay past memories in my mind.
7	I imagine what tomorrow will bring for me.	Yarının benim için ne getireceğini hayal ederim.	I imagine what tomorrow will bring for me.
8	My mind is on the here and now.	Aklım şimdide ve buradada.	My mind is here and now.
9	I reflect on what has happened in my life.	Hayatımda başıma gelenleri düşünürüm.	I reflect on what has happened to me in my life.
10*	*I think about where I am today.*	*Bugün nerede olduğum hakkında düşünürüm.*	*I think about where I am today.*
11	I think back to my earlier days.	Geçmişte yaşadığım günler hakkında düşünürüm.	I think about days that I have lived earlier
12	I think about times to come.	Gelecek günler hakkında düşünürüm.	I think about days to come.

Note: *Item 10 was removed in Turkish Form.

GENİŞLETİLMİŞ ÖZET

Giriş

Zamana odaklanma, bireylerin geçmişte yaşadıkları deneyimler, mevcut durumlar ve geleceğe yönelik beklentileri hakkındaki görüşlerini tutumlarına, düşüncelerine, davranışlarına ve duygularına nasıl dâhil ettiklerini belirleyen bir kavramdır (Bluedorn & Denhardt, 1988; Shipp vd., 2009). Geçmişe odaklanmak, bazen önceki öğrenmeye bağlılık nedeniyle yeni bilgilerin öğrenilmesine yardımcı olur (Holman & Silver, 1998). Öte yandan geçmişte yapılan hatalara, olumsuzluklara veya pişmanlıklara odaklanmak refahı olumsuz etkileyebilir (Sanna vd., 2003). Mevcut bir ana odaklanmak, insanları fırsatları değerlendirmeye teşvik etmenin yanı sıra dürtüsel ve riskli olmalarına da neden olabilir (Zimbardo vd., 1997). Ayrıca geleceğe odaklanmak, bazen hedef belirlemek ve gerekli motivasyon ve başarıya ulaşmak için gerekli olsa da ereğinden fazla olduğunda bireylerde kaygı ve baskıya neden olabilir (Fried & Slowik, 2004). Araştırmalar, iyilik halinin geçmiş odaklı olmakla negatif yönde ilişkili olduğunu ve mevcut odaklı ve geleceğe odaklı olmakla pozitif yönde ilişkili olduğunu göstermektedir (Rush & Grouzet, 2012; Shipp vd., 2009).

ABD'deki orijinal çalışmaya ek olarak, Zaman Odağı Ölçeği (TFS) Avustralya, Kanada, Almanya, Kuzey İrlanda, Japonya ve Birleşik Krallık gibi çeşitli ülkelerde uyarlandı (Chishima vd., 2016; Chishima vd., 2017; McKay vd., 2012; Shipp vd., 2009; Rush & Grouzet, 2012; Strobel vd., 2013; Worrell vd., 2015; Zacher, 2014; 2016). Araştırmalar, TFS'nin iyimserlik, yaşam doyumu, pozitif etki, zaman perspektifi, zaman tutumu, benlik saygısı, risk alma davranışı, alkol kullanımı, hedoistik iyi oluş ve kariyer uyumu ile ilişkili olduğunu ortaya koymuştur (Chishima vd., 2016; Rush & Grouzet, 2012, McKay vd., 2012; Shipp vd., 2009; Worrell vd., 2015; Zacher, 2014). Bu çalışma, TFS'nin geçerlik ve güvenirliğini incelemeyi ve Türk kültürüne adapte etmeyi amaçlamaktadır. Belirli bir zamana odaklanma önemli bir faktör ve insanların yaşamları üzerinde önemli bir etki oluşturmasına rağmen (Shipp vd., 2009), bu konuda Türkiye'de ile ilgili bir

çalışma bulunmamaktadır.Bu nedenle TFS ölçeğinin Türkçeye uyarlanması psikolojik danışmanlık ve eğitim alanında araştırmalara katkı sağlayacaktır.

Yöntem

TFS'nin Türkçe uyarlamasını çalışmak için Bilinçli Farkındalık Ölçeği (MAAS), Pozitif ve Negatif Duygu Ölçeği (PANAS) ve Yaşam Memnuniyeti Ölçeği'ni (SWLS) kullanıldı. TFS, 12 maddeden oluşan üç faktörlü bir ölçektir, MAAS tek faktörde 12 madde içerir, PANAS'ın 20 maddesi olumlu (10 madde) ve olumsuz (10 madde) olmak üzere iki faktöre ayrılmıştır e SWLS bir faktörde beş maddeyi içerir. Bu anketlere ek olarak, demografik değişkenlerin bir parçası olarak cinsiyet, yaş ve bölüm sorulmuştur. Araştırmaya başlamak için araştırmacıların bağlı bulunduğu kurumdan etik kurul onayı alınmıştır. Etik kurul onayından sonra anketler çevrim içi bir anket programına yüklenmiştir. Araştırmacıların isimleri ve iletişim bilgileri, araştırmanın amacı, bilgilendirilmiş onam (gönüllülük, gizlilik vb.) anketin girişinde yer almıştır. Bir devlet üniversitesinde rastgele dört bölüm (eğitim, ekonomi, mimarlık ve hukuk) seçilerek, katılım için öğrencilerine anket bağlantısı gönderilmiştir.

Bulgular

TFS için 12 maddelik doğrulayıcı faktör analizi (DFA) inceleme sonuçları iyi model uyumu göstermemiştir ($\chi2$ [51] = 172.315, $\chi2$ / sd = 3.379, RMSEA = .09, AGFI = .88, GFI = .92, CFI = .93, SRMR = .10). İlk incelemeden sonra, modifikasyon seçenekleri ve literatür tekrar gözden geçirilmiştir. İlk olarak, DFA sonuçları hem Madde 9'un (.26) hem de Madde 10'un (.58) diğer maddelere göre daha düşük puanlara sahip olduğunu göstermiştir (Şekil 1). İkinci literatürde TFS farklı dillere çevrildiği ve birçok ülkede yaygın olarak kullanıldığı belirlenmiştir. Farklı kültürler TFS'yi bazı değişikliklerle uyarladığı literatürde saptanmıştır. Örneğin, Kuzey İrlanda nüfusu için McKay, Percy, Goudie, Sumnall ve Cole (2012) ve Japon nüfusu için Chishima, McKay ve Murakami (2017), Madde 10 olmadan 11 maddeyle TFS'yi uyarlamıştır.12 maddelik TFS Modelinin indeksi kabul edilebilir bir uyum göstermemiştir. Literatür incelemesi ve madde faktör yükleri incelenerek Madde 10'un çıkartılmasına karar verirmiştir ve bu analizin sonucunda 11 maddeli TFS indeksi kabul edilebilir bir model uyumu sonucunu vermiştir.

Türkiye'de TFS'ye uygun iyi bir model bulmak için her iki şekilde de (Madde 9 ve Madde 10'u kaldırarak) inceleme yapılmıştır (Tablo 1). Sonuçlar, Madde 9'u kaldırırdığında, DFA sonuçları iyi model uyumu göstermemektedir ($\chi2$ [41] = 156.617, $\chi2$ / sd = 3.820, RMSEA = .93, AGFI = .87, GFI = .92, CFI = .93, SRMR = .09). Öte yandan, Madde 10'u kaldırıldığında, Chishima vd. (2017) ve McKay ve vd. (2012) ile benzer olarak sonuçlar iyi model uyumu önermektedir ($\chi2$ [41] = 127.073, $\chi2$ / sd = 3.099, RMSEA = .80, AGFI = .90, GFI = .94, CFI = .95, SRMR = .08). Madde 10 olmadan, TFS'nin Türk kültürü için DFA bulguları kabul edilebilir sonuçlar göstermektedir. TFS'nin 11 Maddeli Modeliyle uyumlu geçerlilik, güvenilirlik ve eşzamanlı ve ayrımcı geçerlilik testleri incelenmiştir ve bu sonuçlar bu yeni modeli desteklemiştir (Tablo 1).

Tartışma, Sonuç ve Öneriler

Sonuç olarak, 11 maddelik TFS, Türk popülasyonu için uygundur ve üç alt boyuttan oluşmaktadır. Farklı zaman dönemlerini düşünmek bireylerin yaşamını etkiler ve zaman dönemini incelemek, araştırmacılara bireylerin kişisel, sosyal ve akademik gelişiminde önemli faktörler olan muhakeme davranışları, tutumları ve diğer değişkenler konusunda yardımcı olur. TFS, zamana odaklanma ve diğer konular arasında araştırma yapmak isteyen araştırmacılar için önemli bir ölçüm aracı olabilir. Spesifik olarak, TFS-Güncel alt boyutu, bilinçli farkındalık ile ilgili konuları ölçmek için kullanılabilir. TFS-Gelecek, kariyer danışmanlığı ve ilişki beklentileri gibi gelecek planları da dahil olmak üzere birçok alanda yürütülebilir ve TFS-Geçmiş, bireylerin erken yaşam deneyimlerini, stres, kaygı ve olumsuz duygusal kaynaklarını araştırmak için kullanılabilir.