Travma Sonrası Büyüme Envanteri'nin Türkçe Versiyonunun Normal Toplumda Hiyerarşik Faktör Yapısı

[Hierarchical Factor Structure of the Turkish Version of the Posttraumatic Growth Inventory in a Normal Population]

Mücahit Kağan[1]
Mustafa Güleç[2]
Murat Boysan[3]
Hayati Çavuş[4]

[1]Erzincan University Department of Psychological Counseling and Guidance, Erzincan.
[2]Atatürk University School of Medicine Department of Psychiatry, Erzurum.
[3]Yüzüncü Yıl Üniversity Department of Psychology, Van.
[4]Yüzüncü Yıl Üniversity Department of Educational Sciences, Van.

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Sorumlu yazar/ Corresponding author:
Murat Boysan
Yüzüncü Yıl Üniversity
Department of Psychology,
Van, Turkey.
boysan.murat@gmail.com

ÖZET
AMAÇ: Depresyon, anksiyete veya disosiyasyon gibi travmatik yaşantılar sonrası ortaya çıkan olumsuz sonuçlar araştırmacılar tarafından bildirilmektedir. Buna karşın, travmatik yaşantıların olumsuz psikolojik sonuçların yanı sıra olumlu değişimleri de tetikleyebildiği varsayılmaktadır. Stresli olaylar sonrasında ortaya çıkan olumlu psikolojik değişimlere etki eden etmenleri değerlendirebilmek amacıyla travma sonrası kazanımların ölçümünde kullanılan birkaç ölçme aracı geliştirilmiştir. Travma Sonrası Büyüme Envanteri (TSBE) travma sonrası olumlu değişimleri ölçen psikometrik araçlar içinde en çok bilinenler ölçeklerden biridir. Bu çalışmada Travma Sonrası Büyüme Envanteri'nin Türkçe versiyonunun psikometrik özelliklerinin değerlendirilmesi amaçlanmıştır.
YÖNTEM: Bu çalışma, TSBE'nin özelliklerini değerlendiren önceki çalışmalardan bir ölçüde ayrılmaktadır. Bu çalışmada lise ve üniversite öğrencilerinden oluşan bir gruba ölçeğin genel bir formu verilmiştir. Veriler 723 gönüllü katılımcıdan toplanmıştır. Katılımcıların 367'si (%50,76) erkek ve 356'sı kadındır (%49,24). Normal toplumda görülen stresli yaşam olaylarının hiç de az olmadığı varsayımına dayanarak çalışmaya katılan kişilerin seçimi özel bir travmatik yaşantıya göre yapılmadı. Deneklere Travma Sonrası Büyüme Envanteri ve Kişisel Görüş Ölçeği-III-R uygulandı. TSBE için madde istatistikleri hesaplandı. Promax rotasyonlu açımlayıcı faktör analizi ve yapısal eşitlik modellemesiyle doğrulayıcı faktör analizi yapıldı. Faktörler arası korelasyonlar 0,40'tan yüksek olduğu için ikinci düzey faktör yüklerini elde edebilmek için Schmid-Leiman dönüşümü yapıldı. İç tutarlılıklar ve 15 günlük test tekrar-test sınıf-içi korelasyonları hesaplandı.
BULGULAR: Madde ayırt edicilik indekslerinin 0,28'le 0,72 arasında değişim gösterdiği bulunmuştur. Promaks rotasyonlu temel bileşenler analizi üç faktörlü bir yapıya işaret etmiştir. Yapısal eşitlik modeliyle test edilen üç faktörlü yapının TSBE'nin Türkçe versiyonu için geçerli olduğu görülmüştür. İkinci düzey faktör yüklerini hesapladıktan sonra gene faktörün toplam varyansın yüzde 64'ünü açıkladığı bulunmuştur. Ölçme aracının üç alt ölçeği Kendilik Algısında Değişim, Yaşam Felsefesinde Değişim ve İlişkilerde Değişim olarak sıralanmaktadır. İç tutarlılıklar Kendilik Algısında Değişim için α=0,88, Yaşam Felsefesinde Değişim için α=0,78, İlişkilerde Değişim için α=0,77 ve tüm maddeler için α=0,92'dir. 15 günlük test tekrar test intrakorelasyonları toplam puanlar için 0,83 ve alt ölçekler için 0,70 ve 0,85 arasında değişmektedir.
SONUÇ: Ölçme aracının Türkçe versiyonu üç faktörlü bir yapı göstermiştir. Bununla beraber, TSBE'nin ölçtüğü travma sonrası kazanımlara ilişkin psikolojik yapı Türk örnekleminde özgül tek bir boyutu temsil ediyor gibi görünmektedir. Üç faktörlü yapısının doğrulayıcı faktör analizlerinde geçerliliği kanıtlandığı için ayrıntılı değerlendirme yapmak isteyen araştırmacılar toplam puanlar yerine üç alt ölçeği kullanabilir. TSBE Türk katılımcıların yer aldığı araştırmalarda kullanılabilecek geçerli ve güvenilir bir ölçme aracıdır.

SUMMARY
AIM: : Negative consequences of traumatic experiences, such as depression, anxiety, or dissociative symptoms, etc. have been reported by many researchers. However, it is proposed that stressful events not only lead to poor psychological outcomes but also may trigger positive changes. Several instruments gauging posttraumatic benefits have been developed to examine the effects of factors that may promote positive psychological outcomes in the aftermath of stressful events. The Posttraumatic Growth Inventory (PTGI) is one of the prominent instruments that assess posttraumatic positive changes. In this study we aimed to assess psychometric properties of the Turkish version of the PTGI.
METHOD: This study differed to an extent from previous studies concerning the features of the PTGI. We used a dispositional form of the instrument in a sample recruited from high school and university students. Our data were collected from 723 volunteers. 367 subjects were males (50.76%) and 356 subjects were females (49.24%). Also we did not specify any selection criteria in recruiting subjects owing to their adverse life experiences with a presumption that stressful life events are not uncommon in normal population. We administered to participants a dispositional form of the Posttraumatic Growth Inventory and the Personal View Survey-III. Item statistics for the measure were computed. We performed an explanatory factor analysis by using principal components with promax rotation and a confirmatory factor analysis by using structural equation modeling. Since the factor inter-correlations were higher than .40 we computed Schmid-Leiman transformation to obtain second-order general factor loadings. Inner consistencies and 15-day test-retest intracorrelations were calculated.
RESULTS: Item discrimination indexes ranged from .28 to .72. Promax rotated principal components

analysis pointed out a three-factor structure. It was found in model testing with structural equation modeling that three-factor structure was valid for the Turkish version of the PTGI. After computing second-order factor loadings, we detected that general factor accounted for 64 percentage of the total variance. Three subscales of the measure were the Changes in Self-Perception, Changes in Philosophy of Life, and Changes in Relationship. Internal consistency for the Changes in Self-Perception subscale was 0.88, for the Changes in Philosophy of Life subscale was 0.78, for the Changes in Relationship was 0.77, and for the overall items was 0.92. 15-day test-retest intra-correlation for the composite scores was 0.83 and intra-correlations for the subscale scores ranged from 0.70 to 0.85.

CONCLUSION: Turkish version of the measure revealed a three-factor first-order structure. However, it seems that the concept of posttraumatic benefits measured by the PTGI has a tendency to represent a unidimensional psychological construct in Turkish sample. Since the three-factor structure was validated, three-subscales may also be used to make an extensive assessment instead of composite scores. The PTGI is a valid and reliable measure to be used in research purposes among Turkish individuals.

INTRODUCTION

Positive changes in the aftermath of traumatic experiences have long been recognized by researchers (1, 2). It is suggested that traumatic life events do not always have poor psychological outcomes but rather may result in a higher level of functioning in terms of posttraumatic growth than prior to the event (3).

Several instruments and also psychological constructs have been proposed to assess positive growth posterior to adverse life events. The Stress Related Growth Scale (SRGS) is a 50-item measure (4). The SRGS was translated into Turkish by Güneş (5) and revealed good psychometric characteristics among Turkish sample. The Changes in Outlook Questionnaire (COQ) is a 26-item instrument assessing positive and negative psychological consequences of stressful events (6). Additionally, Abraido-Lanza et al. (7) developed the Thriving Scale (TS), a 20-item new scale, to gauge stress-related growth.

Of various instruments concerning positive outcomes when an individual experienced a stressful event is the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1995, 1996) one of the most well-known measures (1, 8). The instrument has 21 items and five subscales that assess positive changes as relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. Psychometric characteristics of the PTGI have been examined in empirical studies among individuals who experienced highly stressful events such as chronic illness, loss of a family member or a close friend, rape and sexual assault heart attacks, relationship disruption, etc. (9). Researches in various population characteristics showed that invariance of factor structure of the scale is controversial. Although some studies substantiated the five factor structure of the PTGI (9- 12); however, findings were not unequivocal and some other studies proposed inconsistent findings for the factor invariance of the

instrument (13- 17). Psychometric properties of the PTGI were first inquired in Turkish population by Dirik and Karancı (18) in a group of subjects comprised of 117 patients with Rheumatoid Arthritis. This study also proposed a three-factor structure of Changes in Relationship with Others, Changes in Philosophy of Life and Changes in Self-Perception, representing the original theoretical domains of posttraumatic benefits model (1).

So far, psychometric properties of the PTGI have been investigated in different cultures and populations characterized by having experienced highly stressful life events. However, experiencing traumatic events may not be confined to specific events and stressful life experiences are not rare in daily routine (19). The aims of this study were two fold. First, we aimed to examine the psychometric properties of a dispositional form of the PTGI in a normal population which the individuals were not clustered in groups due to a specific stressful life experience. Additionally, participants in this study recruited from distinct age groups, comprised of high school and university students, with a purpose to evaluate the characteristics of the PTGI in teenagers and young adults. Second, we intended to test availability of a second order general hierarchical factor for the PTGI to question whether the construct is multidimensional or unique which has been received less attention in such studies.

MATERIAL and METHOD

Participants

Participants were 723 volunteers recruited from high school (n= 235; 32.50%) and undergraduate students (n=488, 67.50%). 367 subjects were males (50.76%) and 356 subjects were females (49.24%). Participants ranged from 14 to 40 yrs of age, and the mean age of the sample was 20.19 with a standard

deviation of 2.71. Only a small proportion of the sample reported having been married for the demographical question about their marital status (2.49%). 87 participants had a history of psychological problems or diagnosed with a psychiatric disorder (12.03%).

Instruments

The Posttraumatic Growth Inventory (PTGI)

The PTGI was developed to gauge the perceived psychological growth in the aftermath of the traumatic experiences (8). The instrument includes 21 items rated on a 6 point likert scale. Higher scores mean positive psychological changes owing to the adversarial life events. Original form of the instrument has five subscales. Internal consistency of 21-item was α=0.90, and of subscales ranged from α= 0.67 to α= 0.85. A dispositional form of the instrument was used in the study that possible changes after past traumatic experiences or crisis were asked to be rated on (see, APPENDIX).

The Personal Views Survey-III-R (PVS-III-R)

The PVS-III is a 18-item self-administered measure was developed to assess psychological hardiness of individuals (20). Items are rated on a four-point scale range from 0 to 3. The instrument is a short form of The Personal Views Survey and The Personal Views Survey-II (21). Turkish translation of the scale was done by Durak (22). The inner consistency of the scale for current data was α= 0.62.

Procedure

Two academicians acquainted with the topic separately translated the PTGI from English to Turkish. The two translated versions were compared and discrepancies in translated items were discussed. Turkish expressions of the items taking place in the final form of the Turkish version were compiled by consensus to provide semantic and content equivalence. Additionally, back translation of the PTGI items from Turkish to English was performed by an academician who studied his doctorate thesis in USA.

Data were collected from undergraduates recorded at Ankara University and Gazi University in Ankara, Turkey. The psychological instruments were also administered in a high school in Van, Turkey. Undergraduate volunteers as well as parents of high school students were taken written consents. Subjects

whose parents were acknowledged for students' participating to the study completed the psychological instruments in the high school. The current research was conducted in line with the ethical standards approved by University Ethical Committee.

Statistical Analysis

First of all, corrected item-total correlations were computed to assess validity of each item. First-order factor structure was obtained with the explanatory factor analysis and tested with confirmatory factor analysis. Concurrent validity of the instrument was assessed by computing Pearson correlation coefficients of the composite and subscale scores of the PTGI with the Personal View Survey-III scores. Cattell's scree plot test and factor inter-correlations were performed to assess availability of a second-order general factor. Thus, second-order general factor loading for each item was computed by utilizing the Schmid-Leiman transformation. Variances accounted for first-order factors and second-order factor were computed. Significance threshold was held at p<.05.

RESULTS

Item characteristics were evaluated by computing item discrimination values. Item total correlations of the PTGI ranged from .28 to .72. Corrected item-total correlation coefficients for 21 items of the PTGI are presented in Figure 1.
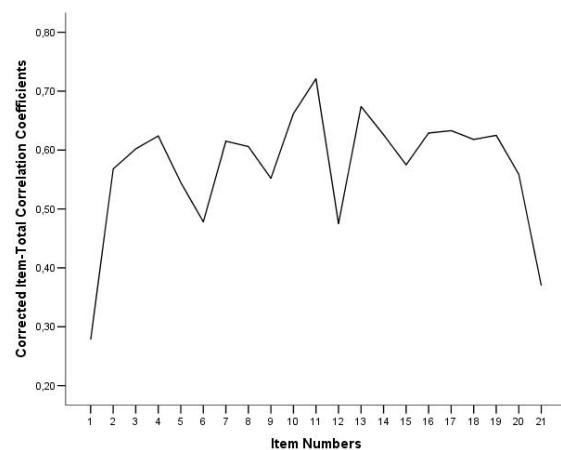

Figure 1: Discrimination indexes for each item of the PTGI.

To examine construct validity of the PTGI in Turkish sample, we performed principal components

analysis with promax rotation, an oblique rotation method.

Table 1: Pearson correlations between psychological variables.

	1	2	3	4	5
1. Posttraumatic Growth Inventory	1				
2. Changes in self perception	.93 **	1	*.65*	*.57*	
3. Changes in philosophy of life	.86 **	.72 **	1	*.47*	
4. Changes in relationship	.79 **	.60 **	.53 **	1	
5. Personal Survey – III – R	.27 **	.23 **	.25 **	.24 **	1
Means	65.55	34.52	18.15	13.16	28.30
Standard Deviations	19.27	9.89	6.33	5.72	6.07

***:p<.01;*Multivariate inter-correlations between factors were given in the right top side of the table in bold.

Table 2: Inner consistency coefficients and intra-correlations.

	Cronbach's Alpha	15-day test-retest intra-correlation
Posttraumatic Growth Inventory	.92	.83
Changes in self perception	.88	.85
Changes in philosophy of life	.78	.74
Changes in relationship	.77	.70

We obtained a three-factor solution in the analysis. A three-factor solution accounted for 39.31% of the total variance. Kaiser-Meyer-Olkin measure of sampling adequacy was 0.94. Validity of the three-factor structure solution obtained with explanatory factor analysis tested for 723 individuals by using structural equation modeling with Satorra-Bentler normality correction. $\chi 2$ value with 186 degrees of freedom of the three-factor model was 645.59. RMSEA was 0.06 (p<.01), Normed Fit Index (NFI) was 0.97, Comparative Fit Index (CFI) was 0.98, and Standardized RMR was 0.05. Model fitness statistics for the three-factor solution pointed out good construct validity (23).

Pearson correlations between composite scores and subscales of the PTGI as well as psychological hardiness scores were computed to appraise concurrent validity. Correlation coefficients between psychological variables, means and standard deviations are presented in Table 1.

To evaluate the reliability of the total 21-item and subscales of the PTGI, Cronbach's alpha coefficients and intra-correlations were computed between two applications in which the second administration was 15 days after the first one, presented in Table 2. 59 subjects participated in over 15-day test-retest repeated applications.

Give the current results, associations of composite scores with subscale scores and inter-correlations between factors were notably high. Additionally, Catell's scree plot, presented in Figure 2, draw attention to availability of a unique factor to be seen in the diagram.
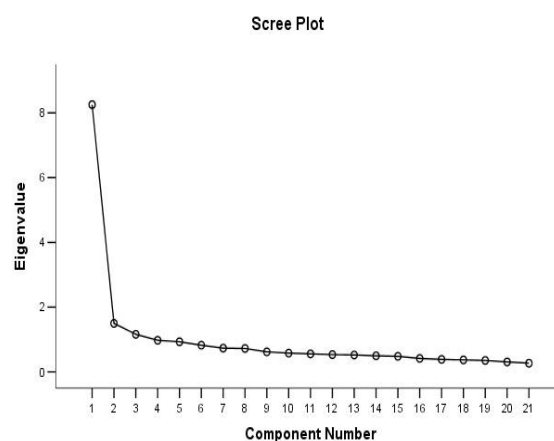

Figure 2: Cattell's Scree Plot for the PTGI.

Thus, we computed the Schmid-Leiman transformations of the factor scores to assess availability of a second order hierarchical general factor. Solutions were presented in table 3.

Computed factor loadings of the second-order general factor were higher than. 30 with an exception of item 1 (h=.28 for item 1). Second-order general factor explained 64 percentage of the total variance.

On the contrary first order factors, respectively, explained 10%, 12%, and 14% of the variance.

Table 3: First-order and second-order general factor loadings obtained with Schmid-Leiman transformation.

	General Factor Loadings	First-order Factors [a]	First-order Unique Factor Loadings [b]			Item Communalities $(\Sigma h^2 j = h^2{}_G + \Sigma h^2{}_{Fi})$
			Factor 1	Factor 2	Factor 3	
PTGI1	0.281	F2	-0.101	0.518	-0.112	0.370
PTGI2	0.553	F2	-0.021	0.509	0.045	0.567
PTGI3	0.577	F2	-0.031	0.510	0.095	0.602
PTGI4	0.625	F2	0.123	0.366	-0.008	0.540
PTGI5	0.561	F1	0.294	0.030	-0.034	0.403
PTGI6	0.434	F3	-0.084	0.047	0.652	0.623
PTGI7	0.610	F2	0.120	0.343	0.010	0.504
PTGI8	0.564	F3	-0.002	0.142	0.498	0.586
PTGI9	0.543	F3	0.133	0.027	0.315	0.412
PTGI10	0.679	F1	0.311	0.163	-0.105	0.595
PTGI11	0.716	F1	0.260	0.221	-0.021	0.630
PTGI12	0.481	F1	0.164	0.092	0.085	0.274
PTGI13	0.671	F1	0.217	0.197	0.056	0.540
PTGI14	0.612	F2	0.115	0.198	0.216	0.474
PTGI15	0.580	F1	0.292	-0.144	0.223	0.492
PTGI16	0.633	F1	0.329	-0.125	0.178	0.556
PTGI17	0.654	F1	0.381	-0.032	-0.036	0.575
PTGI18	0.568	F1	0.440	-0.152	-0.118	0.554
PTGI19	0.644	F1	0.323	0.124	-0.122	0.549
PTGI20	0.547	F3	0.168	-0.089	0.393	0.491
PTGI21	0.334	F3	-0.067	-0.088	0.671	0.574
Composite Communalities for each Factor $(\Sigma h^2 i)$	6.940		1.073	1.316	1.582	10.911
Percentage of Unique Variances Accounted for by each Factor	0.64%		0.10%	0.12%	0.14%	100%

[a] Factor 1 = Changes in self perception; Factor 2 = Changes in philosophy of life, Factor 3= Changes in relationship
[b] First-order factor loadings were recompiled after adjusting for second-order general factor loadings

DISCUSSION

The first aim of this study was to assess the dimensions of the PTGI in a normal population in which the subjects were not selected due to a specific traumatic experience. Seeing that past experiences of the participants were not specified or in other words participants were not recruited owing to a specific adversarial life experience in the current study, we examined the psychometric properties of a dispositional for of the PTGI in a Turkish sample. Also, in this study, it was questioned the properties of

the measure in a sample consisted of distinct age groups ranging from 14 to 40 yrs old.

The factor structure of the PTGI has been addressed in quite many studies and in a confirmatory factor study Taku et al. (9) substantiated the five-factor structure in a sample comprised of individuals participated in 14 distinct researches considering posttraumatic growth and the PTGI was used in. However, the invariance of the five-factor structure could not be maintained in some studies, particularly conducted in non-English talking cultures (14, 16-18, 24). We explored possible factor structure of the Turkish version of the PTGI for observed data by

using explanatory factor analysis using promax rotated principal components and confirmatory factor analysis by using structural equation modeling with Satorra-Bentler normality correction. Our results were odds at previous findings pointing out a five-factor structure. Factor analyses delineated a three-factor structure for the current data which was consistent with the factor structure proposed by Dirik and Karanci (18) in a sample of 117 Turkish Rheumatoid Arthritis patients.

Although subscales of the PTGI have consistently been found as being highly correlated, exploring the availability of a second-order general factor have received less attention (8,9,11,16). Second – order factor analysis conducted only in few studies whereas these studies obtained five dimensions as the first-order factor structure (25,26). Our data supported the findings confirmatory factor studies in which a second-order general factor was proposed but our first-order factor structure was three dimensional. Unique variance by the general factor accounted for 64 percentage of total variance explained by all factors. The excessive proportion of variance owned by general factor provided strong evidence for unidimensionality of the PTGI in Turkish population (27,28). On the contrary, mild correlations of psychological hardiness scores with composite and subscale scores of the PTGI posited weak support for concurrent validity of the instrument.

Item-total correlation coefficients revealed high item discrimination characteristics for 21 items. Inner consistencies computed for the first-order factors and the overall instrument were significantly higher than generally accepted levels. 15-day test-retests intra-correlation coefficients ranged between 0.70 and 0.85 for composite scores and subscales. Dispositional form of the Turkish version of the PTGI in normal population had good reliability characteristics.

This study has several limitations. First, the aim of the study was to evaluate a dispositional form of the PTGI in a normal population. In the previous studies the PTGI was used in populations characterized by having experienced highly stressful life events, particularly stressful medical conditions. In this aspect, although Dirik, & Karancı (18) studied in a group of patients with Rheumatoid Arthritis and reported similar findings consistent with our solutions, individuals who experienced relatively homogeneous negative events may also be used. Second, because of assessing a dispositional form of the PTGI, we did not recorded types of stressful life events experienced by the participants. It may be an extensive source of knowledge to provide information about types of stressful life events in this study.

Third, we addressed the factor structure of the scale in Turkish population. However, factor analyses are not enough to prove construct validity that concurrent validity of the instrument in which ability to distinguish between groups should be assessed in further studies. Finally, data were collected from high school and undergraduate university students. It might bring our findings to more applicable and generalizable if we had extended the research sample to older ages.

This study provides significant information about the factor structure of the PTGI. Psychometric studies have posited that posttraumatic growth is a multidimensional construct with either five or three dimensions. To our findings, the PTGI can be used to assess positive outcomes of adverse life experiences multidimensionally; however, it would be more recommendable to use this construct as a unique construct. Moreover, second-order general factor structure should be taken into consideration in confirmatory factor studies of the PTGI which are likely to be conducted in the future research.

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APPENDIX

Travma Sonrası Büyüme Envanteri

Sizden öğrenmek istediğimiz, yaşamınızda önemli yer tutan travmatik yaşam olaylarının, hayatınızda ne ölçüde pozitif <u>değişikliklere</u> sebep olduğudur. Geçmişte yaşadığınız krizden/krizlerden sonra yaşamınızda ve düşüncelerinizde meydana gelen değişimleri lütfen aşağıda verilen puanlama ölçütlerine göre 0 ve 5 arasında değerlendiriniz.

0	1	2	3	4	5
Stresli olay(lar) sonucu bu değişimi hiçbir şekilde yaşamadım.	Çok az bir düzeyde	Bir miktar	Orta düzeyde	Oldukça fazla	Stresli olay(lar) sonucu bu değişimi çok büyük ölçüde yaşadım.

1. Yaşamda önem verdiğim şeylerin öncelik sırası değişti.	(0) (1) (2) (3) (4) (5)
2. Kendi hayatıma verdiğim değerde büyük bir artış oldu.	(0) (1) (2) (3) (4) (5)
3. Yeni ilgi alanları keşfettim.	(0) (1) (2) (3) (4) (5)
4. Kendime güven hissinde artış oldu.	(0) (1) (2) (3) (4) (5)
5. Manevi konuları daha iyi anlamaya başladım.	(0) (1) (2) (3) (4) (5)
6. Başım sıkıştığında insanlara güvenebileceğimi daha iyi anladım.	(0) (1) (2) (3) (4) (5)
7. Yaşamım için yeni bir yön belirledim.	(0) (1) (2) (3) (4) (5)
8. Kendimi diğer insanlarla çok daha yakın hissetmeye başladım.	(0) (1) (2) (3) (4) (5)
9. Duygularımı ifade etmeye daha çok istekliyim.	(0) (1) (2) (3) (4) (5)
10. Zorlukları göğüsleyebileceğimi daha iyi anladım.	(0) (1) (2) (3) (4) (5)
11. Yaşamımda daha iyi şeyler yapabiliyorum.	(0) (1) (2) (3) (4) (5)
12. Her şeyi olduğu gibi, daha çok kabullenebiliyorum.	(0) (1) (2) (3) (4) (5)
13. Her günümü daha iyi değerlendirebiliyorum.	(0) (1) (2) (3) (4) (5)
14. Daha önce var olmayan yeni olanaklara kavuştum.	(0) (1) (2) (3) (4) (5)
15. Diğer insanlara karşı daha şefkatliyim.	(0) (1) (2) (3) (4) (5)
16. İlişkilerime daha çok emek sarf etmeye başladım.	(0) (1) (2) (3) (4) (5)
17. Değişmesi gereken şeyleri değiştirebilmek için daha çok çaba harcıyorum.	(0) (1) (2) (3) (4) (5)
18. Daha güçlü bir inanca sahibim.	(0) (1) (2) (3) (4) (5)
19. Düşündüğümden çok daha güçlü olduğumu keşfettim.	(0) (1) (2) (3) (4) (5)
20. İnsanların ne kadar mükemmel olabildiklerine dair çok şey öğrendim.	(0) (1) (2) (3) (4) (5)
21. Başkalarına ihtiyaç duyuyor olmayı daha çok kabullendim.	(0) (1) (2) (3) (4) (5)

Türkçe Forma İlişkin Puanlama Yönergesi

Benlik algısında değişim = Madde 5 + Madde 10 + Madde 11 + Madde 12 + Madde 13 + Madde 15 + Madde 16 + Madde 17 + Madde 18+ Madde 19

Yaşam felsefesinde değişim = Madde 1 + Madde 2 + Madde 3 + Madde 4 + Madde 7 + Madde 14

Başkalarıyla ilişkilerde değişim = Madde 6 + Madde 8 + Madde 9 + Madde 20 + Madde 21

Orijinal Forma İlişkin Puanlama Yönergesi

Başkalarıyla ilişkiler = Madde 6 + Madde 8 + Madde 9 + Madde 15 + Madde 16 + Madde 20 + Madde 21

Yeni olanaklar = Madde 3 + Madde 7 + Madde 11 + Madde 14 + Madde 17

Kişisel dayanıklılık = Madde 4 + Madde 10 + Madde 12 + Madde 19

Manevi değişim = Madde 5 + Madde 18

Hayata değer verme = Madde 1 + Madde 2 + Madde 13