

Reliability and Validity of Psychological General Well-Being Index in Turkish Population

Türk Toplumunda Psikolojik Genel İyilik Hali Anketinin Türkçe Versiyonunun Geçerlilik ve Güvenilirliği

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Summary

Objective: The aim of this study was to assess the reliability and validity of the Turkish version of the Psychological General Well-Being Index (PGWBI) in healthy and patient population.

Materials and Methods: Fifty healthy individuals (Group 1) and 194 patients (Group 2) were included in the study. Group 2 comprised patients with low back pain and neck pain (n=50, Group 2a), osteoarthritis (n=50, Group 2b), fibromyalgia syndrome (n=50, Group 2c) and stroke (n=44, group 2d). The PGWBI was translated into Turkish according to standard adaptation procedure. This index consisted of 6 subscales (anxiety, depressed mood, positive well-being, self-control, general health and vitality) and 22 items. The PGWBI was administered to subjects twice a week for testing reliability. Validity was based on correlating the PGWBI scores with that of the Nottingham Health Profile (NHP).

Results: The internal consistency and test-retest reliability were found to be good in healthy individuals and patient groups separately (Cronbach's alpha range: 0.93-0.92; intraclass correlation coefficient range: 0.88-0.99). The total scores of the PGWBI in healthy individuals showed significant correlations with all subareas of the NHP (r range:-0.38-0.70, p<0.05), except for pain (r:-0.16, p>0.05). The total PGWBI scores had significant correlations with all subscores of the NHP in patient groups (range from r:-0.29-0.64, p<0.05).

Conclusion: The Turkish version of the PGWBI is a reliable and valid instrument for evaluating quality of life in healthy and patient population. *Turk J Phys Med Rehab 2010;56:161-9.*

Key Words: Validity, reliability, psychological general well-being Index, quality of life

Özet

Amaç: Bu çalışmada amaç, sağlıklı ve hasta popülasyonda Psikolojik Genel İyilik Hali Anketinin (PGİHA) Türkçe versiyonunun geçerlilik ve güvenilirliğini değerlendirmektir.

Gereç ve Yöntem: Çalışmaya 50 sağlıklı gönüllü (Grup 1) ve 194 hasta (Grup 2) dahil edildi. Grup 2, bel ve boyun ağrısı (n=50, Grup 2a), osteoartrit (n=50, Grup 2b), fibromiyalji sendromu (n=50, Grup 2c) ve inme (n=44, Grup 2d) hastalarından oluşuyordu. Standart adaptasyon prosedürüne göre PGİHA Türkçe versiyonuna çevrildi. Bu anket toplam 22 sorudan ve 6 alt gruptan (anksiyete, depresif duygudurum, pozitif iyilik hali, self kontrol, genel sağlık ve vitalite) oluşuyordu. Geçerliliğin değerlendirilmesi için anket haftada iki defa uygulandı. Güvenilirliği için Nottingham Sağlık Profili (NSP) ile korelasyonuna bakıldı.

Bulgular: Hasta ve sağlıklı kişilerde anketin içsel tutarlılığı ve ardarda test etme güvenilirliği iyiydi (Cronbach's alfa değeri 0,93-0,92 aralığında, sınıf içi korelasyon katsayısı 0,88-0,99 aralığındaydı). Sağlıklı bireylerde total PGİHA skoru, NSP'nin ağrı alt grubu (r:-0,16, p>0,05) hariç diğer alt grupları ile istatistiksel anlamlı korelasyon göstermekteydi (r:-0,8-0,70, p<0,05). Hasta grubunda total PGİHA skoru, NSP'nin tüm alt grupları ile anlamlı korelasyon göstermekteydi (r:-0,29-0,64, p<0,05).

Sonuç: Sağlıklı ve hasta popülasyonda PGİHA Türkçe versiyonu yaşam kalitesinin değerlendirilmesi için geçerli ve güvenilir bir anketir. *Türk Fiziksel Tıp Rehab Derg 2010;56:161-9.*

Anahtar Kelimeler: Geçerlilik, güvenilirlik, psikolojik genel iyilik anketi, yaşam kalitesi

Introduction

The outcome measurements for functional status and quality of life in the evaluation of chronic disability causing diseases have drawn increasing interest in recent years (1). After the description of health by the World Health Organization (WHO) as not only absence of any disease or disability but also individuals' physical, mental and social well-being, quality of life concept has started to come into prominence.

Quality of life is individual's state of being pleased in accordance with own standard of judgment in the culture and, status, aims, expectations and perception of life (2,3). Quality of life instruments are classified into two groups: generic and disease-specific (4,5). Generic instruments can be used in patients and healthy individuals and are available for comparison. They evaluate quality of life globally, but are less sensitive to variations (e.g. the Nottingham Health Profile-NHP, the Short Form 36-SF36). However, disease-specific instruments can be applied only in a specific group of diseases. They can evaluate only the areas specific to that disease and have strong sensitivity to variations (e.g. the Rheumatoid Arthritis Quality of Life Scale-RAQoL, the Arthritis Impact Measurement Scale - AIMS) (4-6).

Quality of life instruments are widely used in rheumatic diseases and in every step of the rehabilitation process, especially, in the evaluation stage by applying them as an outcome measure, for early detection of patients' situation, functions, mortality and morbidity, following the progress of the disease and the side effects related to the drugs and evaluation of the treatment (4,5,7,8).

The Psychological General Well-Being Index (PGWBI) is a generic quality of life questionnaire widely used in clinical and epidemiological studies and evaluates self-perceived psychological health and general well-being. The original measurement consisting of 68 questions was developed by Harold Dupuy aiming to assess psychological distress of the American society. Then this measurement was revised, shortened to 22 questions and named as PGWBI (9). Although the PGWBI has been validated and used in many countries in the general population and in specific patient groups, it has not been validated in Turkey yet (10,11). Therefore, the main objective of this study was to evaluate the reliability and validity of the Turkish version of the PGWBI in healthy population. The second objective was to assess its validity in common chronic diseases (including low back pain, neck pain, osteoarthritis, fibromyalgia syndrome and stroke) for our population.

Materials and Methods

The Psychological General Well-Being Index

The PGWBI is a 22-item health-related quality of life questionnaire, which provides a 4 self-perceived evaluation of psychological and general well-being. It consists of 6 subareas: anxiety (5 items), depressed mood (3 items), positive well-being (4 items), self-control (3 items), general health (3 items), and vitality (4 items). Answers are marked on a 6-point Likert scale (0-5, 0: reflecting the most distress, 5: reflecting the highest level of well-being). Six subscores and a global score can be calculated in a range of 0 to 110. The higher the scores, the better the well-being (9,12).

Adaptation Process

Cross-cultural adaptation of the PGWBI into the Turkish population was done by using recommended guidelines (13). Three native Turkish authors (a medical doctor (HG), an engineer (AE) and an English teacher (BO) translated the index into Turkish. The translations were reviewed and a synthesis was performed. Then it was translated back to English by a bilingual author (PB). A committee consisting of a medical doctor, a translator and an English teacher controlled the grammar of the index and compared it with the original questionnaire. The prefinal version was administered to 30 patients with low back pain, neck pain, fibromyalgia syndrome, osteoarthritis, stroke, and to 30 healthy individuals. All patients were interviewed to make sure that all items were easily understood. Then the final version was produced and used to evaluate the validity and reliability in patients and healthy individuals (Appendix 1).

Subjects

We recruited 50 healthy individuals (Group 1) and 194 patients (Group 2) from the outpatient clinic at the Department of Physical Medicine and Rehabilitation. Group 2 included patients with low back pain and neck pain (n=50, Group 2a), osteoarthritis (n=50, Group 2b), fibromyalgia syndrome (n=50, Group 2c) and stroke (n=44, Group 2d). Patients with a cognitive disorder, psychiatric diagnosis or history of psychiatric treatment were excluded. Sociodemographic characteristics of the patients (age, gender, occupation, disease duration) were recorded. The PGWBI was administered to the subjects twice a week for testing reliability. Validity was based on correlating the PGWBI scores with the validated Turkish version of the Nottingham Health Profile (NHP) (14).

The NHP is a generic quality of life measurement, which aims to measure the person's own perception of physical, emotional and social health situation. It consists of 38 questions evaluating physical mobility, pain, sleep, social isolation, emotional reactions and energy in 6 subscales (15).

This study was approved by the Ufuk University Human Research Ethics Committee, and all participants signed an informed consent.

Statistical Analysis

Normality of the data was tested by using the Kolmogorov-Smirnov test.

Test-retest Reliability: Test-retest reliability indicates that there has been no change in the conditions between successive administrations. It was evaluated using intraclass correlation coefficient (ICC) with 95% confidence interval and ranges between 0 and 1, and the results over 0.70 were accepted adequate for reliability (14,16).

Internal Consistency: Internal consistency of an instrument is an estimate of the degree to which its constituent items are interrelated and is assessed by Cronbach's alpha coefficient. Cronbach's alpha coefficient ranges from 0 to 1 and higher values indicate higher internal consistency reliability (17).

The Bland-Altman Plot: The Bland-Altman approach, which compares two measurement techniques, assesses the agreements between scores at two time points. The differences between the two techniques were marked against their averages in a scatter diagram (Fig 1). Horizontal lines were drawn at the mean difference, and the standard deviation of differences was lined on the plus and minus 1.96 times of the mean difference (18).

Construct Validity

Construct validity is determined by testing for expected associations between the adapted instrument and other valid measures. The relationship between the total PGWBI score and the 6 NHP subareas (physical mobility, pain, sleep, social isolation, emotional reactions and energy) in the healthy and patient groups was assessed using the Spearman's correlation coefficient (13,19).

Results

Demographic features of the participants are shown in Table 1. **Reliability**

We found that the total PGWBI was reliable in healthy subjects and in individuals with a chronic disease (Cronbach's alpha coefficients were 0.93 and 0.92, respectively). Four dimensions of the PGWBI had a Cronbach's alpha coefficient greater than the generally recommended value (0.70), except for the dimensions of positive well-being and general health (mean scores of 0,67, 0,66 and 0,52, 0,66, respectively). The Cronbach's alpha coefficient values of 6 subgroups of the PGWBI are shown in Table 2.

The total PGWBI test-retest reliability was good, with a high intraclass correlation coefficient (ICC 0.95-0.98) between the two time periods in both healthy individuals and patients. Again, the ICC values were very high for the subgroups of PGWBI (range: 0.88-0.99) (Table 3).

The distribution of the total PGWBI scores in healthy individuals and patients ranged between 6.7 and 7.6 within the 95% interval. In conclusion, agreement between the PGWBI scores at two points was acceptable (Figure 1).

Internal consistency results were good for specific chronic disorders including low back pain, neck pain, osteoarthritis, fibromyalgia syndrome, and stroke (Cronbach's alpha coefficients ranged between 0.90 and 0.93). Also the test-retest reliability scores were very good for the total PGWBI scores (ICC values ranged between 0.93 and 0.99). The results of the subgroup items of the PGWBI and specific disorders are shown in Table 4 (Cronbach's alpha range: 0.44-0.83 and ICC range: 0.83-0.99).

Construct Validity

The total score of the PGWBI in healthy individuals was found to be correlated with the subareas of the NHP (r:-0.38-0.70, p<0.05) except for the pain (r:-0.16, p>0.05). Statistically significant correlations were observed between the total scores of the PGWBI and all subgroups of the NHP in patient groups (r:-0.28-0.64, p<0.05). In the healthy group, moderate and good correlations were observed between the subgroups of the PGWBI and NHP, while weak correlations were found between all subgroups of the PGWBI and the pain subarea of the NHP (r:-0.10-0.26, p>0.05), self-control subgroup of the PGWBI and the physical mobility subarea of the NHP (r:-0.22, p>0.05), general health subgroup of the PGWBI and the energy subarea of the NHP (r:-0.24, p>0.05). No correlation was observed between the anxiety subgroup of the PGWBI and the physical mobility subarea of the NHP. However, there was a good correlation between all PGWBI subgroups and all NHP subareas in patients (Table 5).

There were moderate to good correlations between the total PGWBI scores and the NHP subareas in patients with low back pain, neck pain, osteoarthritis and fibromyalgia syndrome

Table 1. Demographic features of participants.

	Group1 (n=50)	Group2a (n=50)	Group 2b (n=50)	Group 2c (n=50)	Group 2d (n=44)
Age (Mean, SD)	39.34±11.75	48.96±13.47	55.96±10.23	48.46±10.71	58.38±10.92
Gender (Female/Male)	34/16	40/10	36/14	38/12	20/24
Occupation					
Housewife	3 (6%)	20 (40%)	17 (34%)	18 (36%)	13 (29.5%)
Officer	44(88%)	12 (24%)	20 (40%)	26 (52%)	18 (40.9%)
Retired	2 (4%)	16 (32%)	11 (22%)	3 (6%)	3 (6.8%)
Employer	1(2%)	2(4%)	2 (4%)	3 (6%)	10 (22.7%)
Disease duration (month)	0	47±44.99	50.46±64.22	27.62±23.83	9.84±18.86

Group 1: Healthy individuals, Group 2a: Low back pain and neck pain, Group 2b: Osteoarthritis, Group 2c: Fibromyalgia syndrome, Group 2d: Stroke, SD: Standard deviations.

Table 2. Internal consistency values of healthy and patient groups.

PGWBI Scales	Group 1 (n=50) Cronbach's alphas	Group 2 (n=194) Cronbach's alphas
PGWBI total	0.93	0.92
Anxiety	0.86	0.80
Depressed mood	0.85	0.74
Positive well being	0.67	0.66
Self-control	0.79	0.73
General health	0.52	0.66
Vitality	0.77	0.76

Group 1: healthy individuals, Group 2: patient groups, PGWB: Psychological General Well-Being Index

Table 3. Test-retest reliability values of healthy and patient groups.

PGWBI Scales	Group 1 (n=50) ICC (95% CI)	Group 2 (n=194) ICC (95% CI)
PGWBI total	0.95 (0.91-0.97)	0.98 (0.97-0.98)
Anxiety	0.91 (0.85-0.95)	0.97 (0.96-0.97)
Depressed mood	0.94 (0.89-0.96)	0.96 (0.95-0.97)
Positive well-being	0.88 (0.81-0.93)	0.99 (0.98-0.99)
Self-control	0.93 (0.89-0.96)	0.98 (0.97-0.98)
General health	0.94(0.90-0.96)	0.95 (0.93-0.96)
Vitality	0.92 (0.87-0.95)	0.97 (0.97-0.98)

ICC: Intraclass correlation coefficient, CI: Confidence interval, PGWBI: Psychological General Well-Being Index

(r: -0.32-0.68, p<0.05). In patients with stroke, the total PGWBI score showed moderate and good correlation with the pain (r:-0.38, p<0.05), social isolation (r:-0.33, p<0.05), emotional reactions (r:-0.44, p<0.01) and the energy subareas of the NHP (r:-0.35, p<0.05), except for the physical mobility (r:-0.12, p>0.05) and sleep subareas (r:-0.21, p>0.05) (Table 6).

Discussion

The PGWBI is a quality of life questionnaire, which allows self-perceived evaluation of subjective well-being or distress. It has been validated and used in many countries in healthy population and specific disorders. However, these studies were performed mostly on specific patient group or on the general population (9-12,20). In this study, we planned to show the reliability and validity of the Turkish version of the PGWBI in healthy individuals as well as in patients with chronic diseases (i.e. low back pain, neck pain, osteoarthritis, fibromyalgia syndrome, and stroke).

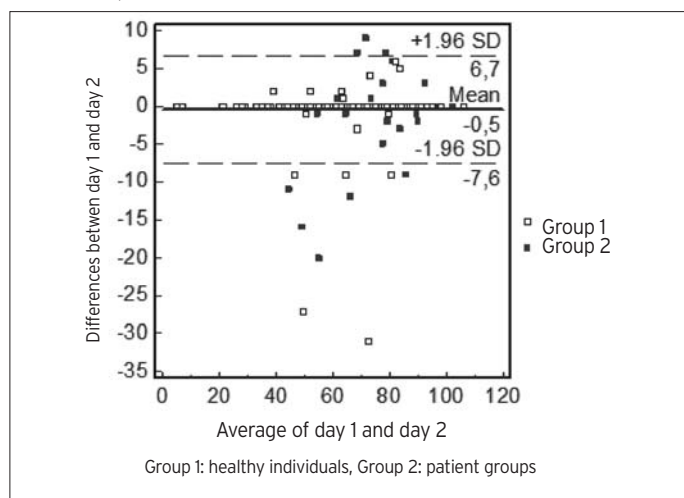


Figure 1. Bland-Altman Plot for the Psychological General Well-Being Index.

The internal consistency and test-retest reliability of the Turkish version were as good as the results achieved in other languages. The Cronbach's alpha was 0.93 in healthy subjects, 0.92 in patients with low back pain and neck pain, 0.93 in patients with osteoarthritis, and 0.90 in patients with fibromyalgia syndrome and stroke.

A project named MiOS was created in Italy in 2000 to investigate the quality of life scales. A Cronbach's alpha coefficient of 0.94 was found in a study investigating the reliability of the PGWBI in the general population over 15 years of age in Italy. The results of this study were similar to ours with a Cronbach's alpha of 0.93 for the healthy population (12,21). As a part of the MiOS project, the short version of the PGWBI was created by excluding 6 items from the total scale. The short form was studied in the general population, psychology students and patients with chronic inflammatory bowel disease and found to be reliable for all groups (Cronbach's alpha coefficient range: 0.80-0.92) (12). Similarly, our study included healthy and patient groups. Again, the total PGWBI was reliable for all patient groups (Cronbach's alpha coefficient range: 0.90-0.93).

Previous studies compared two quality of life scales (PGWBI and Women's Health Questionnaire (WHQ)) on 155 menopausal women in the Italian population, and the validity and reliability of the PGWBI were found to be better than the validity and reliability of the WHQ (10). Regarding the validity of the Italian version of the PGWBI in postmenopausal women, the Cronbach's alpha coefficients for the PGWBI ranged from 0.63 to 0.89 and were over 0.70 for the 4 subgroups of the PGWBI; the Cronbach's alpha values for general health and self-control subgroups were low (0.63 and 0.69, respectively). The reason for the poor reliability of these two subgroups was attributed to different number of questions in each subgroup. After the evaluation performed with an assumption of equal number of questions in each subgroup, the Cronbach's alpha values increased (between 0.85 and 0.94). The PGWBI was found to be valid and reliable in patients with amyotrophic lateral sclerosis and was accepted as a gold standard index in evaluation of subjective well-being or distress (11).

Table 4. Internal consistency and test-retest reliability values of patient subgroups.

PGWBI Scales	Group 2a Cronbach's alphas, ICC (95% CI)	Group 2b Cronbach's alphas, ICC (95% CI)	Group 2c Cronbach's alphas, ICC (95% CI)	Group 2d Cronbach's alphas, ICC (95% CI)
PGWBI total	0.92, 0.99 (0.99,1.00)	0.93, 0.99 (0.99,0.99)	0.90, 0.99 (0.99-0.99)	0.90, 0.93 (0.88,0.96)
Anxiety	0.80, 0.99 (0.99-0.99)	0.82, 0.96 (0.94-0.98)	0.73, 0.98 (0.98-0.99)	0.73, 0.93 (0.88-0.96)
Depressed mood	0.62, 0.99 (0.99-0.99)	0.82, 0.99 (0.98,0.99)	0.58, 0.99 (0.99-0.99)	0.58, 0.83 (0.72-0.90)
Positive well-being	0.71, 0.99 (0.99-0.99)	0.66, 0.98 (0.96,0.98)	0.54, 0.99 (0.98,0.99)	0.50, 0.99 (0.98,0.99)
Self-control	0.53, 0.98 (0.97-0.99)	0.79, 0.99 (0.99-0.99)	0.52, 0.99 (0.99-0.99)	0.44, 0.94 (0.90-0.96)
General health	0.61, 0.98 (0.97-0.99)	0.62, 0.96 (0.94,0.98)	0.77, 0.99 (0.99-0.99)	0.69, 0.89 (0.81-0.94)
Vitality	0.83, 0.99 (0.99-0.99)	0.68, 0.99 (0.89-0.99)	0.68, 0.99 (0.99-0.99)	0.72, 0.96 (0.93-0.97)

Group 2a: Low back pain and neck pain, Group 2b: Osteoarthritis, Group 2c: Fibromyalgia syndrome, Group 2d: Stroke, ICC: Intraclass correlation coefficient, CI: Confidence interval, PGWBI: Psychological General Well-Being Index

Although the results of self-control and general health subgroups were lower than 0.70, the Cronbach's alpha of the total index was 0.96. The reliability of the Swedish version of the PGWBI in postmenopausal women was found between 0.61 and 0.89 (4). In this study, Cronbach's alpha was 0.61 for the general health subgroup. Similarly, the reliability of the total and subgroups of the PGWBI were evaluated in our study; Cronbach's alpha was 0.52-0.93 in the healthy population and between 0.66 and 0.92 in the patient groups. Although the Cronbach's alpha values of positive well-being and general health subgroups of the PGWBI in healthy and patient groups were less than 0.70, the total PGWBI Cronbach's alpha values for the healthy and patient groups were higher in our study (0.93 and 0.92, respectively). This also showed high reliability of the Turkish version of the scale.

Test-retest reliability of the Turkish version of the PGWB was good. The ICC values varied between 0.88 and 0.95 in the healthy group and between 0.83 and 0.99 in the patient groups. The ICC values for Italian postmenopausal women were reported between 0.77 and 0.90 (10). ICC had a value of 0.76 for the Spanish version of the PGWBI (11). In the study by Revicki et al. (22), ICC interval for

PGWBI was 0.66-0.84. Our results showed a higher test-retest reliability compared to these studies.

Our results demonstrated that the correlation of the total PGWBI scores with all NHP subareas was good, except for pain in the healthy group, and validity was good with all items of the NHP subareas. The PGWBI was found valid for patients with low back pain, neck pain, osteoarthritis, and fibromyalgia syndrome. In stroke patients, the total PGWBI scores were found valid for all items of the NHP subareas, except for physical mobility and sleep. These results support that the construct validity of the Turkish version of the PGWBI is good in healthy individuals and patients. In the Swedish version of the PGWBI, the validity based on Kupperman Index was evaluated in postmenopausal women and was found to be significant for the total and subgroup items of the PGWBI, except for the general health subgroup (4). Matza et al. (20) studied the validity of the PGWBI in patients with type 2 diabetes mellitus and found that it was valid by comparing the total scores of the Appraisal of Diabetes Scale (ADS) and the Diabetes Symptom Checklist-Revised (DSC-R).

Table 5. Construct validity: Correlation between the PGWBI total and subscores and the NHP subareas in healthy and patient groups.

	NHP Physical mobility	NHP Pain	NHP Sleep	NHP Social isolation	NHP Emotional reactions	NHP Energy
Group 1						
PGWBI total	-0.38**	-0.16	-0.44**	-0.70**	-0.59**	-0.54**
Anxiety	-0.33*	-0.11	-0.34*	-0.66**	-0.58**	-0.47**
Depressed mood	-0.30*	-0.26	-0.51**	-0.62**	-0.67**	-0.48**
Positive well-being	-0.28*	-0.10	-0.30*	-0.61**	-0.48**	-0.40**
Self-control	-0.22	-0.20	-0.38**	-0.66**	-0.61**	-0.58**
General health	-0.40**	-0.24	-0.34*	-0.52**	-0.34*	-0.24
Vitality	-0.48**	-0.10	-0.39**	-0.61**	-0.45**	-0.57**
Group 2						
PGWBI total	-0.29**	-0.40**	-0.28**	-0.46**	-0.64**	-0.48**
Anxiety	-0.10	-0.29**	-0.21**	-0.36**	-0.58**	-0.34**
Depressed mood	-0.14*	-0.24**	-0.20**	-0.42**	-0.59**	-0.35**
Positive well-being	-0.20**	-0.27**	-0.47**	-0.33**	-0.47**	-0.31**
Self-control	-0.27**	-0.24**	-0.28**	-0.47**	-0.52**	-0.52**
General health	-0.45**	-0.49**	-0.26**	-0.38**	-0.47**	-0.54**
Vitality	-0.35**	-0.47**	-0.26**	-0.41**	-0.52**	-0.52**

Group 1: healthy individuals, Group 2: patient groups, PGWBI: Psychological General Well-Being Index, NHP: Nottingham Health Profile,** Significance p<0.01, * Significance p<0.05.

Table 6. Construct validity: Correlation between the total PGWBI index and the NHP subareas in patient subgroups.

PGWB total score	NHP subgroups					
	Physical mobility	Pain	Sleep	Social isolation	Emotional reactions	Energy
Group 2a	-0.39**	-0.47**	-0.53**	-0.56**	-0.59**	-0.60**
Group 2b	-0.44**	-0.40**	-0.32*	-0.37**	-0.44**	-0.48**
Group 2c	-0.42**	-0.51**	-0.33*	-0.39**	-0.68**	-0.50**
Group 2d	-0.12	-0.38*	-0.21	-0.33*	-0.44**	-0.35*

Group 2a: Low back pain and neck pain, Group 2b: Osteoarthritis, Group 2c: Fibromyalgia syndrome, Group 2d: Stroke, PGWBI: Psychological General Well-Being Index, NHP: Nottingham Health Profile,** Significance p<0.01, * Significance p<0.05.

As a conclusion, the Turkish version of the PGWBI is a reliable and valid instrument with practical and easy application in the Turkish population. Therefore, it would be beneficial for the evalu-

ation of quality of life in healthy individuals and in patients with chronic diseases including low back pain, neck pain, osteoarthritis, fibromyalgia syndrome, and stroke.

Apendix 1.

PSİKOLOJİK GENEL İYİLİK HALİ ANKETİ

1. Geçen ay içinde genel olarak kendinizi nasıl hissediyordunuz?	
Mükemmel bir ruh halinde	5
Çok iyi bir ruh halinde	4
Çoğunlukla iyi ruh halinde	3
Ruhsal durumumda sıklıkla iniş çıkışlar oluyordu	2
Çoğunlukla kötü ruh halinde	1
Çok kötü bir ruh halinde	0
2. Geçen ay içinde herhangi bir hastalık, vücut bozukluğu, ağrı veya sızı nedeniyle ne sıklıkla canınız sıkıldı?	
Her gün	0
Hemen hemen her gün	1
Ayın yarısı sürede	2
Arada sırada ama yarıdan az	3
Nadiren	4
Hiçbir zaman	5
3. Geçen ay içinde kendinizi depresyonda hissettiniz mi?	
Evet - hayatımı sona erdirecek düzeye kadar	0
Evet - hiçbirşeye aldırış etmeyecek düzeye kadar	1
Evet - hemen hemen her gün çok depresyonda	2
Evet - çeşitli kereler oldukça depresyonda	3
Evet - arada sırada hafif depresyonda	4
Hayır - asla kendimi depresyonda hissetmedim	5
4. Geçen ay içinde davranış, düşünce ve duygularınızı tam olarak kontrol edebiliyor muydunuz?	
Evet, kesinlikle	5
Evet, çoğu zaman	4
Genellikle	3
Pek iyi değil	2
Hayır, ayrıca bundan rahatsız gibiyim	1
Hayır, ayrıca bundan çok rahatsızım	0
5. Geçen ay içinde asabiyet veya sinirleriniz yüzünden canınız sıkıldı mı?	
Aşırı derecede - işte çalışamama veya işleri halledememe noktasına kadar	0
Oldukça çok	1
Epeyce	2
Biraz - ancak rahatsızlık duyacak kadar	3
Az	4
Hiç sıkılmadı	5
6. Geçen ay içinde kendinizi ne kadar enerjik, canlı veya şevkli hissettiniz?	
Çok enerji dolu	5
Çoğu zaman oldukça enerjik	4
Enerji düzeyim değişkenlik gösterdi	3
Genellikle düşük enerjili	2
Çok düşük enerjili	1
Hiç enerji veya isteğim yoktu - Kendimi halsiz ve güçsüz hissettim	0
7. Geçen ay içinde kendimi üzgün ve kederli hissettim	
Hiçbir zaman	5
Az bir süre	4
Bazı zamanlar	3
Epey bir zaman	2
Çoğu zaman	1
Her zaman	0

8. Geçen ay içinde genellikle gergin miydiniz veya herhangi bir gerginlik hissettiniz mi?	
Evet - her zaman son derece gergindim	0
Evet - çoğu zaman çok gergindim	1
Genellikle gergin değilim ama çeşitli kereler epey gerginlik hissettim	2
Bir kaç kere hafif gerginlik hissettim	3
Gerginlik düzeyim genel olarak oldukça düşük	4
Asla gerginlik hissetmedim	5
9. Geçen ay içinde kişisel yaşamınızdan ne kadar mutlu, tatmin veya memnun oldunuz?	
Son derece mutlu - daha fazla tatmin yada memnun olamazdım	5
Çoğu zaman çok mutlu	4
Genellikle tatminkar, memnun	3
Bazen oldukça mutlu, bazen de oldukça mutsuz	2
Genel olarak tatminsiz veya mutsuz	1
Çok tatminsiz veya çoğu zaman mutsuz	0
10. Geçen ay içinde sevdiğiniz veya zorunlu olduğunuz şeyleri yapacak kadar kendinizi sağlıklı hissettiniz mi?	
Evet kesinlikle	5
Çoğunlukla	4
Sağlık problemlerim bazı önemli açılardan beni kısıtladı	3
Ancak kendime bakacak kadar sağlıklıyım	2
Kendime bakmak için biraz yardıma ihtiyacım oldu	1
Yapmak zorunda olduğum şeylerin çoğu veya hepsinde yardıma ihtiyacım oldu	0
11. Geçen ay içinde kendinizi çok üzgün, hevesi kırılmış, umutsuz hissettiniz mi veya çok sayıda probleminiz nedeniyle hiçbir şeyin değerli olmadığını düşündünüz mü?	
Aşırı derecede - kendimi bırakma noktasına kadar	0
Çok fazla	1
Oldukça fazla	2
Biraz - beni rahatsız edecek kadar	3
Azıcık	4
Hiç de değil	5
12. Geçen ay içinde sabahları dinç ve dinlenmiş olarak uyandım.	
Hiç bir zaman	0
Nadiren	1
Bazen	2
Epeyce	3
Çoğu zaman	4
Her zaman	5
13. Geçen ay içinde sağlığınız hakkında kaygı, endişe veya korkularınız oldu mu?	
Son derece fazla	0
Çok fazla	1
Oldukça fazla	2
Biraz, ancak çok değil	3
Pratikte asla	4
Hiç bir zaman	5
14. Geçen ay içinde aklınızı yitiriyor gibi ya da davranış, düşünce, hissetme veya hafızanız üzerindeki kontrolünüzü kaybedecekmiş gibi hissettiniz mi?	
Hiç bir zaman	5
Çok az	4
Biraz - ancak endişelenecek kadar değil	3
Biraz ve az düzeyde endişelerim var	2
Biraz ve epeyce endişeliyim	1
Evet hem de çok - oldukça fazla endişeliyim	0

15. Geçen ay süresince günlük hayatım ilginç şeyler ile doluydu	
Hiç bir zaman	0
Çok az	1
Bazı zamanlar	2
Epeyce	3
Çoğu zaman	4
Her zaman	5
16. Geçen ay içinde kendinizi aktif ve canlı mı yoksa sıkın ve tembel mi hissettiniz?	
Her gün çok aktif ve canlı	5
Çoğunlukla aktif ve canlı - asla sıkın ve tembel değil	4
Oldukça aktif ve canlı - nadiren sıkın ve tembel	3
Oldukça sıkın ve tembel - nadiren aktif ve canlı	2
Çoğunlukla sıkın ve tembel - asla aktif ve canlı değil	1
Her gün çok sıkın ve tembel	0
17. Geçen ay içinde kaygılı, endişeli veya üzgün müydünüz?	
Son derece - neredeyse hastalık derecesine kadar	0
Çok fazla	1
Epeyce	2
Biraz - rahatsız edecek kadar	3
Az	4
Hiç değildim	5
18. Geçen ay içinde duygusal olarak dengeli ve kendimden emindim.	
Hiç bir zaman	0
Nadiren	1
Bazı zamanlar	2
Epeyce bir süre	3
Çoğu zaman	4
Her zaman	5
19. Geçen ay içinde kendinizi rahat, gevşek mi, gergin mi yoksa neşeli mi hissettiniz?	
Tüm ay boyunca gevşek ve rahat	5
Çoğu zaman gevşek ve rahat	4
Genel olarak rahat ancak bazen oldukça gergin	3
Genel olarak gergin ancak bazen oldukça rahat	2
Çoğu zaman gergin, sinirli ve heyecanlı	1
Tüm ay boyunca gergin, sinirli ve heyecanlı	0
20. Geçen ay içinde kendimi neşeli ve endişesiz hissettim.	
Hiç bir zaman	0
Çok az bir zaman	1
Biraz	2
Epeyce bir süre	3
Çoğu zaman	4
Her zaman	5
21. Geçen ay içinde kendimi yorgun, bitkin veya tükenmiş hissettim.	
Hiç bir zaman	5
Çok az bir zaman	4
Biraz	3
Epeyce bir süre	2
Çoğu zaman	1
Her zaman	0
22. Geçen ay içinde kendinizi gergin, stresli veya baskı altında hissettiniz mi?	
Evet - neredeyse dayanabileceğimden fazla	0
Evet - oldukça fazla	1
Evet biraz - her zamankinden fazla	2
Evet biraz - her zamanki kadar	3
Evet - çok az	4
Hiç hissetmedim	5

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