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Original Article

Translation and Validation of the Functional Assessment of Chronic Illness Therapy-Palliative Care (Facit-Pal-14) Scale

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Abstract

Introduction: In palliative care, assessing outcomes and evaluating quality of life (QoL) are essential to ensure high-quality, evidence-based care. The aim of this study was the Greek validation of the Functional Assessment Chronic Illness Therapy-Palliative Care (FACIT-PAL-14) in patients with cancer.

Methods: The FACIT-PAL-14 was translated into Greek and administered to 185 patients with cancer treated in two central hospitals of Athens, Greece. Data collection lasted from January to March 2022. FACIT-PAL-14 is a 41 item measurement of QoL that includes the 27 items of the FACIT-General and 14 additional items that form the palliative care scale. The Monroe Dunaway Anderson Symptom Inventory (MDASI), was used to evaluate the criterion validity. Also the following analyses were conducted; confirmatory factor analysis (CFA), exploratory factor analysis (EFA), concurrent validity, internal consistency and instrument stability.

Results: Participants' mean (SD) age was 57.37(14.38) and the majority were women (55.1%) and had breast cancer (31.4%). Three factors were exported from the statistical analysis of the palliative care scale that explained the 62.21% of the variance. These factors were psychological wellbeing, physical symptoms and close relationships. FACIT-PAL-14 and its factors had high internal consistency. Cronbach's alpha coefficient for the total score of the FACIT-PAL-14 questionnaire was 0.781. Intraclass correlation (ICC) between initial assessment and reassessment of the FACIT-PAL-14 factor 1, factor 2, factor 3 and total score were 0.985, 0.972, 0.981 and 0.991 respectively. FACIT-PAL-14 subscales presented moderate correlation with MDASI subscales.

Conclusion: The Greek version of FACIT-PAL-14 is valid and reliable scale in patients with cancer.

Introduction

The World Health Organization defines palliative care as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual". Palliative care enhances the quality of life of people affected by chronic diseases and has a positive influence at the course of illness.[1] In cancer care, it is offered together with other treatments, such as chemotherapy or radiotherapy and includes a better understanding and management of the clinical manifestations of cancer and its treatments that cause distress to patients.[2]

Quality of life (QoL) is also defined by the World Health Organization as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns".[3] The concept of QoL is broad and complex and it is influenced by many factors. These include the physical and mental state of a person, its social interactions and social environment and its level of independence. Ultimately, QoL is a multidimensional concept that covers a broad range of content, including physical, functional, emotional, and social well-being and a subjective concept that is interpreted and defined by each individual.[4]

For patients with cancer, QoL is of a great value because the disease itself combined with treatments' toxicity cause great burden and distress to them.[5] Advances in the QoL assessments over the past 30 years have allowed healthcare professionals to address the challenge of effectively measuring QoL in patients with cancer.[6]

In palliative cancer care, assessing outcomes and evaluating the care are essential to ensure high-quality, evidence-based care. Palliative care assessment by oncology teams includes evaluation of the benefits and risks of treatments, assessment of physical symptoms, psychosocial and spiritual distress, educational and informational needs, personal goals and hopes and cultural aspects affecting care.[7]

For measuring the QoL of people with chronic illnesses, the FACIT measurement system has a set of multidimensional instruments. These instruments are managed and officially distributed by the FACIT organization.[8] The Functional Assessment of Chronic Illness Therapy-General (FACT-G), is a 27-item general measure of health-related QoL in patients with chronic diseases. It includes four scales: physical, social, emotional and functional wellbeing. In addition to the general scale (FACT-G), there are currently over 50 subscales available in English that are disease specific and treatment or symptom specific.[9] The FACIT-PAL instrument is comprised of the FACT-G plus the palliative care subscale (19 items), that were reported via interviews with advanced cancer patients.[10] The FACIT-PAL-14 is the shorten version of the FACIT-PAL, with 14 items in the palliative care subscale and was created after interviews with 60patients and 56 healthcare professionals.[11]

There is a wide variety of tools for assessing patients' QoL in patients with cancer.[12] It should be noted that there is no "gold standard" tool for the assessment of QoL and this makes its evaluation even more difficult.[13] For the assessment of QoL in palliative care patients, the EORTC-QLQ-C15-PAL (European Organization for Research and Treatment of Cancer (EORTC), the Palliative Care Outcome Scale (POS) have been used[14]; widely by palliative care specialists in Europe.[15] Also, other tools such as the EORTC-QLQ-C30, the McGill QOL questionnaire and the EQ-5D have been validated in the palliative care setting.[14]

FACIT-PAL and its shortened version have undergone little psychometric evaluation to date, despite the fact that it is concise and easy to use, and could be applied in different cultural populations. Until today it has not been translated and validated in the Greek language. Thus, the purpose of the present study was the translation and validation of the FACIT-PAL-14 in Greek language.

Materials and Methods

A prospective, observational, cross-sectional, non-randomized, study was conducted in which measurement scales were used for data collection and multiple methods of data analysis. Data collection was carried out from January to March 2022.

The study was carried out in two central public hospitals in Athens, Greece. Participants were selected from cancer patients attending the oncology outpatient, inpatient and radiotherapy unit. The sample was collected through convenience sampling and consisted of 185 patients with cancer. Patients that were included in the study were adults (age of 18 or older) with any cancer type and any stage and had the ability to provide verbal informed consent and understanding and reading of the Greek language (native language). Patients who did not understand the Greek language sufficiently and those who suffered from a psychiatric disorder were excluded from participating in the study.

Patients completed the Functional Assessment of Chronic Illness Therapy-Palliative Care (FACIT-PAL-14), the Monroe Dunaway Anderson Symptom Inventory (MDASI), along with demographic and clinical data. The construct validity of the FACIT-PAL-14 was tested by performing correlation analysis between the FACIT-PAL-14 and the MDASI subscales. The time for completing the questionnaires was approximately 20 minutes.

The FACIT-PAL-14 is the shortened 14-item questionnaire of the FACIT-PAL that has been generated for the palliative care population. It is a self-report questionnaire for evaluating the QoL in palliative care patients. It consists of 41 items that are divided into five subscales: physical well-being (seven items), social/family well-being (seven items), emotional wellbeing (six items), and functional well-being (seven items) and one that collects other additional concerns (14 items) that form the palliative care subscale (Pal). Per se, the FACIT-PAL contains the 27-items of the FACT-G and adds 14 items. Items are rated using a five-point Likert-type (0-4) scale (0 not at all, 1 a little bit, 2 somewhat, 3 quite a bit, 4 very much). The recall period is the past week. For the FACIT-PAL-14, scores range from 0 to 56 for the palliative care subscale and from 0 to 164 for the whole instrument. Higher scores indicate a better QoL.[11]

The MDASI is used to assess the presence and severity of cancer-related symptoms experienced by patients with cancer and their impact in daily living in the last 24 hours. The questionnaire consists of two parts. The core MDASI (part I), which consists of 13 symptom items and rated based on their presence and severity. Each symptom is rated on an 11-point numeric scale ranging from 0 (not present) to 10 (as bad as you can imagine). In part II of the questionnaire, patients rate the degree to which symptoms interfere with their daily living (general activity, mood, work, relations with other people, walking and enjoyment of life). These range from 0 (did not interfere) to 10(interfered completely). The Greek version of the MDASI is translated and validated by Mystakidou et al.[16]

Patients' performance status was assessed with the Eastern Cooperative Oncology Group (ECOG) scale. The 0 stands for functional status with normal activity without limitation, as before the disease, 1 for limitation of vigorous physical activities, but normal mobility and ability for light work, 2 for ability only for self-care, inability for any work, 3 for ability of only limited self-care and 4 for complete inability of self-care.[17]

According to instructions given from the FACIT organization, translation and linguistic validation methodology, at first two independent bilingual researchers made two forward translations from English to the Greek language. Afterwards, a union of these two forward translations was provided by a third translator. Finally, a back translation into English was performed by a fourth translator and the final translation was reviewed and finalized by a fifth translator. Then, the final version was tested on 10 patients. They completed the questionnaire and answered questions from the cognitive debriefing script that was prepared from the FACIT organization and translated by the research team. The interviews lasted up to 30 minutes, of which 10 min were required for most of the patients to complete the FACIT-PAL-14. The items of the questionnaire were not found to be irrelevant, upsetting or disturbing for any patient.

Permission for the use of the FACIT-PA-14L was requested through the official website FACIT Measurement System.

The research was also carried out after permission had been obtained from the hospitals' ethics and university research committee. Patients were informed verbally and written about anonymity, confidentiality, voluntary participation, the possibility to withdraw from the study at any time and signed the consent form. Then, the participants answered, at the same time, the questionnaire in the presence of the researcher, after thorough explanation. In addition, protection of the participants' personal data was ensured by anonymous completion of questionnaires and code assignment.

The confirmatory factor analysis (CFA) was used to examine the factor structure of the questionnaire as suggested by the creator of the questionnaire. The CFA was carried out using the Analysis of Moment Structure (AMOS) Version 21.0. The sample size required for the CFA based on researcher's conventions ranging for the participant's ratio 3:1 to as high as 12:1. The FACIT-PAL 14 consisted of 14 items, thus our sample size of 185 is within the above guidelines.

Rejecting or accepting a model was based on some global fit indices; (1) chi-square-degrees of freedom (d. f.) ratio (2) the root mean square error of approximation (RMSEA); (3) the comparative fit index (CFI); (4) the normed fit index (NFI); (5) the goodness fit index (GFI) and; (6) the adjusted GFI (AGFI) The chi-square-degrees of freedom (df) ratio < 2.0,[18] RMSEA < 0.08, CFI > 0.90,[19] GFI > 0.85, AGFI > 0.80,[20] NFI > 0.90,[21] indicate an acceptable fit.

Exploratory factor analysis (EFA) was conducted using maximum likelihood extraction method with Varimax rotation, was conducted for all participants to determine the factor structure of the 14 items of the FACIT-PAL-14 questionnaire. The selection of factors was based on the following criteria (*a*) eigenvalues ≥ 1; (*b*) items with factor loadings ≥ 0.4; (*c*) items that did not load on more than one factor. The numbers factors to retain were also confirmed by using a Monte Carlo PCA.

Construct validity of the translated version of the FACIT-PAL-14 was assessed by establishing its correlation to the MDASI subscales using the Pearson's correlation coefficient. Moderate or high correlation between FACIT-PAL-14 to a well-established questionnaire would support the validity of the FACIT-PAL-14 questionnaire in measuring QoL in the palliative setting.

Floor or ceiling effects are considered to be present if more than 15% of respondents achieved the lowest or highest possible score, respectively.

The internal consistency reliability of the FACIT-PAL-14 was determined by calculating the Cronbach alpha coefficient. A Cronbach alpha coefficient value of 0.7 indicates sufficient reliability for research purposes and suggests that items are interdependent and homogeneous in terms of the construct they measure. For clinical applications it is desirable to have a Cronbach alpha above 0.8.[22]

Test-retest reliability indicates the stability of patients' response in time and it was determined by calculating the intraclass correlation coefficient (ICC) between the initial assessment of the FACIT-PAL-14 and the reassessment after 3 days. In test-retest situations, studies follow the appropriate design for analysis by means of two-way models. A two-way random effects model to measure agreement, which assumes that the different assessments are randomly selected, is appropriate for most test-retest evaluations in QoL studies.[23]

All tests were two-sided, a P value of < 0.05 was used to denote statistical significance. All analyses were carried out using the statistical package SPSS version 21.00 (IBM Corporation, Somers, NY, USA).

Results

Descriptive Characteristics

The mean (SD) age of the 185 patients with cancer of the sample was 57.37 (14.38) (range 18-87 years). The majority of the participants were women (55.1%), married (64.3%), university graduates (45.9%) and employed (43.2%). Their functional status was ECOG 0 at 52.4 % and 31.4% had breast cancer. Most of the cancers were at stage 2 (30.3%) with no metastasis (69.7%). Finally, regarding the treatments that patients received, 78.4% had received chemotherapy, 82.2% radiotherapy and 61.6% surgery treatment (Table 1).

Table 1. Descriptive statistics of participants

Patients		No. (%)
Gender	Women	102 (55.1(
	Men	83)44.9(
Ethnicity	Greek	175 (94.6)
	Other	10 (5.4)
ECOG	0	97 (52.4)
	1	66 (35.7)
	2	18 (9.7)
	3	4 (2.2)
Marital Status	Unmarried	27 (14.6)
	Married	119 (64.3)
	Divorced	18 (9.7)
	Widowed	21 (11.4)
Educational level	Elementary school	27 (14.6)
	High school	73 (39.5)
	University	85 (45.9)
Employment	Employed	80 (43.2)
	Unemployed	21 (11.4)
	Retired	66 (35.7)
Cancer diagnosis	Lung	35 (18.9)
	Breast	58 (31.4)
	Gynecological	16(8.6)
	Urinary	26 (14.1)
	Gastrointestinal	16 (8.6)
	Other	34 (18.4)
Disease stage	I	43 (23.2)
	II	56 (30.3)
	III	51 (27.6)
	IV	35 (18.9)
Metastasis	Yes	56 (30.3)
	No	129 (69.7)
Comorbidities	Yes	89 (48.1)
	No	96 (51.9)
Chemotherapy		145 (78.4)
Radiotherapy	Yes	152 (82.2)
Surgery		114 (61.6)
Age	Mean)SD(	57.37 (14.38) (range 18-87)

SD: Standard deviation.

The Validation of the FACIT-PAL-14 Questionnaire

The Greek version of FACIT-PAL-14 was assessed in terms of its validity and reliability.

Confirmatory Factor Analysis (CFA) Original

A one-factor model of FACIT proposed by the creator, was examined by CFA giving unacceptable global fit indices. The resulting global fit indices chi-square-degrees of freedom (d.f.) ratio = 6.98, RMSEA = 0.180, CFI = 0.520, NFI = 0.486, GFI = 0.548, AGFI = 0.439 showed that the one factor solution should be rejected.

Exploratory Factor Analysis (EFA)

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was equal to 0.870 showing suitable data for factor analysis. The hypothesis of no intercorrelation of items was rejected by Bartlett's test of sphericity ($\chi 2 = 1996.3$ df = 171, $P < 0.001$.

The 14 items were analyzed via maximum likelihood extraction method using a Varimax rotation. Three factors, with eigenvalue of over 1 and loadings ≥ 0.40 were identified. The eigenvalue for the first factor was 6.62, explaining 34.9% of the variance. Factor loadings, ranged from 0.587 to 0.850 for the Factor 1. The eigenvalue for the second factor was 3.62, explaining 19.1% of the variance. Factor loadings, ranged from 0.497 to 0.793 for the Factor 2. The eigenvalue for the third factor was 1.58, explaining 8.3% of the variance. Factor loadings, ranged from 0.649 to 0.832 for the Factor 3 (Tables 2 and 3).

The scree test and Monte Carlo PCA for parallel analysis (the criterion value of forth eigenvalue was 1.32, higher than eigenvalue of the fourth factor of our data which was 0.92) indicated a three factor structure (Figures 1 and 2).

Criterion Validity

Table 4, presents the correlations between the three factors of FACIT-PAL-14 and the MDASI subscales. All Pearson's correlation coefficients were statistically significant ($P < 0.001$). Factor 1 had a high negative correlation with the MDASI subscales and there was a moderate positive correlation between factor 2 and both the MDASI subscales. Also, factor 3 had a low negative correlation with the MDASI subscales.

Overall, the total score of FACIT-PAL-14 was moderately and negatively correlated with the MDASI subscales. So, since there is a moderate correlation between the FACIT-PAL-14 and MDASI, the validity of it that FACIT-PAL-14 is supported and it measures QoL in palliative care patients.

Reliability

The reliability of the FACIT-PAL-14 questionnaire was tested for the characteristics of stability and internal consistency.

Internal Consistency

For testing the internal consistency of the FACIT-PAL-14 Cronbach's alpha coefficient was used. Cronbach's alpha coefficient for the total score of the FACIT-PAL-14 questionnaire was 0.781 which showed that the scale has very good internal consistency. Furthermore, results produced the following coefficients Cronbach's a, 0.914 for Factor 1, 0.861 for Factor 2 and 0.847 for Factor 3, indicating that there was high internal consistency.

Test-Retest Method

From the total of 185 patients, 30 of them completed the questionnaire for a second time (retest) after a three-day

Table 2. Eigenvalues and explained variance of FACIT-PAL-14 questionnaire

Factors	Eigen values	% of Variance	Cumulative %
1	6.623	34.86	34.86
2	3.618	19.04	53.90
3	1.579	8.31	62.20
4	0.917	4.83	67.03
5	0.741	3.90	70.94
6	0.696	3.66	74.60
7	0.673	3.54	78.14
8	0.605	3.19	81.33
9	0.544	2.87	84.19
10	0.512	2.69	86.88
11	0.428	2.25	89.14
12	0.368	1.94	91.08
13	0.343	1.81	92.88
14	0.322	1.70	94.58
15	0.240	1.26	95.84
16	0.228	1.20	97.04
17	0.207	1.09	98.13
18	0.197	1.04	99.17
19	0.158	0.83	100.00

Table 3. Factor structure and loadings of FACIT-PAL-14 questionnaire

Items	Factors		
	1	2	3
Pal1			0.649
Pal2			0.816
Pal3			0.832
Pal4		0.618	
B1		0.497	
Pal5		0.591	
C2		0.771	
O2		0.793	
Pal6		0.739	
Pal7		0.706	
Br7	0.691		
Pal8	0.700		
Pal9	0.850		
Pal10	0.650		
Sp21	0.766		
Pal12	0.811		
L1	0.763		
Pal13	0.607		
Pal14	0.587		

Note: Extraction method: maximum likelihood.
Rotation method: Varimax.
Only loadings > 0.4 were presented.

period. ICC between initial assessment and reassessment of the FACIT-PAL-14 factor 1, factor 2, factor 3 and total score were 0.985, 0.972, 0.981 and 0.991 ($P < 0.001$) respectively. The above results of stability indicated that MBI factor 1, factor 2, factor 3 and total score were remarkably consistent between the two occasions.

Floor/Ceiling Effect Analysis

Floor and ceiling effect of the 3 factors and total score were presented in Table 5. The critical value of 15% was surpassed only for Factor 3 presenting 26.5% floor effect.

Discussion

The aim of our study was to assess the validity and reliability of the Greek version of the FACIT-PAL-14 questionnaire. Overall, the analyses conducted provide evidence to support the internal consistency reliability and validity of the palliative care subscale for use in this population.

Up to date, the FACIT-PAL is translated in four languages, Turkish,[24] Spanish,[25] African,[26] and German[27]; but validated only for the first three languages. There is also a study of transcultural adaptation in Colombian advanced cancer patients.[28]

As indicated from the analysis, the alpha coefficient for the Greek version of the palliative care subscale (α = 0.781) is similar to the alphas reported at the original version (α = 0.82),[29] and other FACIT-PAL validation studies, per se, the Turkish (α = 0.860),[24] African (α = 0.81),[26] and the Spanish (α = 0.751) version.[25]

In addition, no studies were found to evaluate the criterion validity of this scale similar to our study. Other FACIT-PAL validity studies used the Edmonton Symptom Assessment Scale (ESAS),[24,29] the Center for Epidemiological Studies-Depression (CES-D),[29] and the EORTC-QLQ-C15-PAL.[25] We used another widely used symptom assessment scale, the MDASI scale to evaluate the criterion validity.

The factor analysis of the 14 items of the palliative care subscale in Greek, revealed three factors, psychological wellbeing, physical symptoms and close relationships. In the original study by Lyons et al[29] the scree plot suggested five factors. The four factors were the factors from FACT-G (Physical Well-Being, Functional Well-Being, Emotional Well-Being, Social Well-Being) and two palliative care subscale items ("I am able to make decisions" and "My thinking is clear") formed a fifth factor, "Clarity of Thought and Decisions". The Spanish[25] and the Turkish[24] analysis revealed that the 46 item FACIT-PAL had a structure of five factors (Physical Well-Being, Functional Well-Being, Emotional Well-Being, Social Well-Being, Additional concerns). Finally, at the study of Siegert et al[26] in three African countries (Uganda, Kenya, Republic of South Africa), the 19-item FACIT-PAL scale showed three factors, factor 1, a sense of purpose and meaning in life, factor 2, physical symptoms and factor 3, social integration.

As it is noted, our results are somewhat different from the other studies, except the African one. This could be

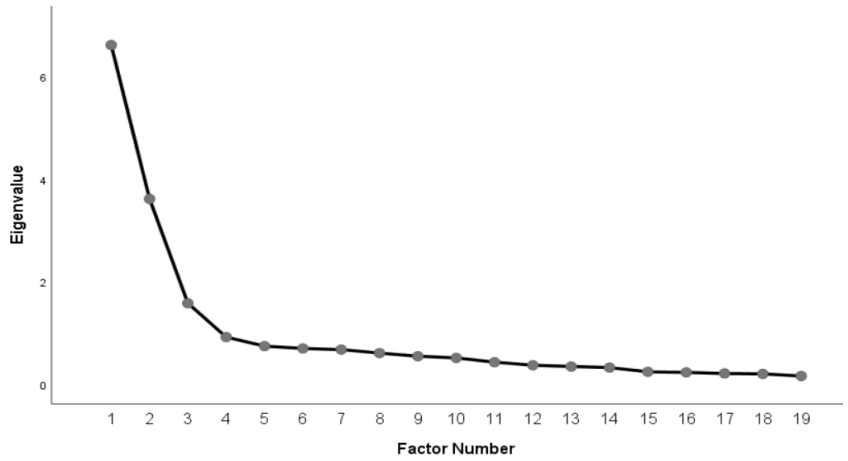

Figure 1. Scree plot of FACIT-PAL-14 questionnaire; three factors, with eigenvalue of over 1 and loadings ≥ 0.40 were identified. The scree test and Monte Carlo PCA for parallel analysis (the criterion value of forth eigenvalue was 1.32, higher than eigenvalue of the fourth factor of our data which was 0.92) indicated a three factor structure

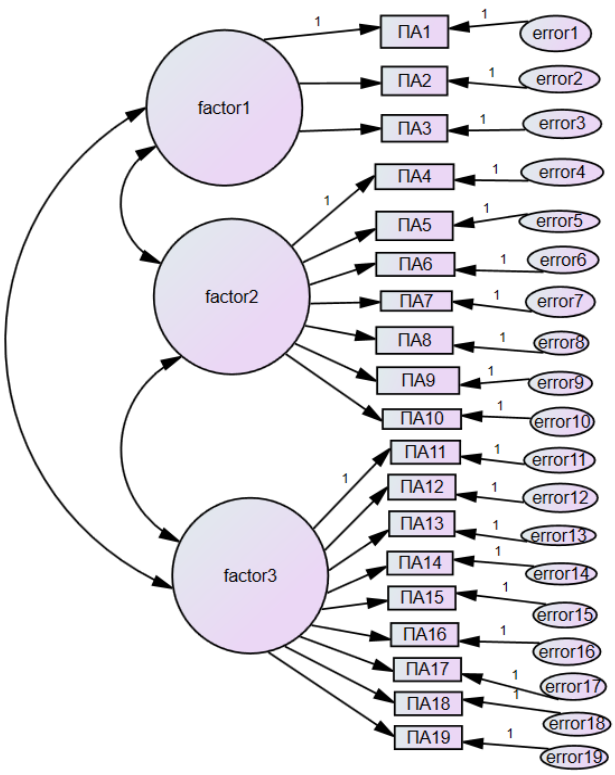

Figure 2. Confirmatory factor analysis of FACIT-PAL-14 questionnaire; the scree test and Monte Carlo PCA for parallel analysis (the criterion value of forth eigenvalue was 1.32, higher than eigenvalue of the fourth factor of our data which was 0.92) indicated a three factor structure

attributed to the cultural differences or to the fact that we chose to factor analyze only the 14 items of the palliative care scale of the FACIT-PAL-14 and not the whole scale as most of the researchers. It is proposed by FACIT that when using the FACIT-PAL, the FACT-G should be summed into the original subscales and the palliative care scale items should be reported separately. Both analytic strategies are valid, with the former focusing on what the measures have in common and our approach focusing on their unique aspects.[26]

Table 4. Convergent validity of FACIT-PAL-14 questionnaire

	MDASI-I	MDASI-II
Factor 1	-0.632	-0.657
Factor 2	0.400	0.351
Factor 3	-0.185	-0.258
Total Score	-0.280	-0.354

Note: All correlations were statistically significant ($P<0.01$).

Table 5. Floor and ceiling effect of FACIT-PAL-14 questionnaire

	Floor effect	Ceiling effect
Factor 1	0.5%	12.4%
Factor 2	7.6%	1.1%
Factor 3	4.3%	26.5%
Total score	0.5%	0.5%

At this point the 3 factors of the Greek version of the FACIT-PAL-14 should be given importance. Regarding the physical symptoms, it is well acknowledged that patients with cancer endure a variety of physical symptoms caused by cancer itself and the different treatment approaches.[30] Palliative cancer patients more often experience pain, breathlessness, fatigue, insomnia, nausea and vomiting, constipation and loss of appetite. When they are not managed appropriately, these symptoms can have a negative impact on patients' functionality and QoL.[31] As indicated from the analysis the seven items that form the factor of physical symptoms include the symptoms of weakness, breathlessness, constipation, weight loss vomiting, swelling, xerostomia. All of these symptoms should be assessed by using patient-reported outcome measures, such as the FACIT-PAL-14. This is an effective approach to improve symptom control.[32,33]

Afterwards, the other factor was the psychological well-being. Palliative cancer patients have great distress, anxiety, depression and adjustment issues.[34,35] Depression, anxiety and distress severely impact patients' with cancer

QoL.[36] Nevertheless, it is difficult for palliative care doctors to identify, assess and treat the psychological and psychiatric morbidity of patients[37]; and a minority of patients with psychological distress are treated with psychological interventions.[38] The use of validated tools for QoL that assess patients' patients with cancer psychological wellbeing is encouraged.[39] Also there is evidence that the implementation of psychological interventions in palliative care is effective in reducing psychological morbidity. Such interventions include cognitive behavioral-based, mindfulness-based, meaning-based and dignity-based interventions. The research in the field of psychological interventions in palliative care settings is growing and showing promising results.[35]

The factor of close relationships, included 3 items; "I keep in touch with my friends", "I have family members who will take over responsibilities for me", "I feel that my family values me". The social network of a patient with cancer (family and friends) is a major component of palliative care. Social difficulties that may occur during the palliative care trajectory include relational, family, domestic, communication, financial and legal problems.[35] Therefore, palliative cancer patients should be offered sufficient social support and psychosocial care.[40] Social support is the perceived availability, or actual provision of information or assistance, that enables a person to manage their daily life effectively. Social support comprises of structural and functional measures. Structural measures include patient's social relationships and are correlated with their QoL. The functional measures are what is widely considered as social support and include the resources and services provided by people who are involved the patient's social network and also emotional and informational support.[41]

The present study is unique in that it assesses the reliability and validity of a new scale not previously thoroughly examined. Also, the FACIT-PAL-14 includes items on physical, emotional, social/family, and functional well-being and symptoms stated to be important for cancer patients and highly related to their QoL. It is short and easy to administer and has been used in different cultures and settings. This Greek validation applies to cancer patients that speak the Greek Language. Nevertheless, this shortened version of the FACIT-PAL needs further psychometric validation.

Conclusion

In summary, the Greek version of the FACIT-PAL-14 is a reliable and valid measure to use in palliative care cancer patients. Future evaluation of the psychometric properties of the Greek version in FACIT-PAL-14 should include diverse samples of patients with other chronic diseases. It is of great importance for healthcare professionals to constantly and effectively assess patients' QoL, in order to tailor interventions and achieve quality results, throughout the cancer trajectory.

Research Highlights

What is the current knowledge?

- The FACIT-PAL-14 is the shortened 14-item questionnaire of the FACIT-PAL that is used for assessing patients' QoL in the palliative care context

What is new here?

- The Greek version of the FACIT-PAL-14 is a reliable and valid measure to use in palliative care patients with cancer.

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Author's Contribution

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Methodology: Efi Parpa, Antonis Galanos.
Project administration: Kyriaki Mystakidou.
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Software: Antonis Galanos.
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Validation: Efi Parpa, Antonis Galanos, Kyriaki Mystakidou.
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Writing–original draft: Ioanna Tsatsou, Efi Parpa, Maria Nikoloudi, Antonis Galanos
Writing–review & editing: Ioanna Tsatsou, Efi Parpa, Kyriaki Mystakidou.

Competing Interests

The authors have no conflicts of the interest to declare.

Data Availability Statement

The datasets are available from the corresponding author on reasonable request.

Ethical Approval

The research was carried out after permission had been obtained from the hospitals' ethics and university research committee. Patients were informed verbally and written about anonymity, confidentiality, voluntary participation, the possibility to withdraw from the study at any time and signed the consent form. Protection of the participants' personal data was ensured by anonymous completion of questionnaires and code assignment.

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None.

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