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Original Research

Turkish Adaptation of QLQ-SH22 Quality of Sexual Life Assessment Scale in Cancer Patients - Validity and Reliability Study

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Abstract

Objectives: Cancer or its treatment can have direct or indirect effects on sexual functions. Routine assessment of sexual functioning is essential in cancer patients to identify sexual problems and provide counseling to patients about these issues. This study aimed to investigate the validity and reliability of the Turkish version of the European Organisation for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire - Sexual Health 22 prepared for the assessment of sexual function in cancer patients.

Methods: The sample of the study consisted of 201 patients, aged between 18-75, who received inpatient or outpatient treatment and treatment follow-up in the medical oncology unit of two private hospitals in Istanbul, regardless of cancer type, treatment stage and form. Language equivalence has been achieved. The validity of the scale was evaluated by factor analysis and the suitability of the model was determined by Goodness of Fit Indices. For the reliability of the scale, internal consistency was tested with Cronbach's alpha value. For consistency, a relationship was sought between the data taken 3 weeks apart using the test-retest method and the Spearman Correlation Test.

Results: Goodness of Fit Indices; It was calculated as Comparative Fit Index (CFI)=0.98, Tucker-Lewis Index (TLI)=0.98 Goodness of Fit Index (GFI)=1.32, Root Mean Square Error of Approximation (RMSEA)=0.04, Standardized Root Mean Square Residual (SRMR)=0.088. All factor loadings were found statistically significant with $p<0.0001$. In the internal consistency analysis, Cronbach alpha values of 0.91, 0.79 and 0.88 were obtained for sexual satisfaction, sexual pain subscales and all questions, respectively, and all groups were found to be reliable. In the Spearman Correlation Test used for consistency analysis, all coefficients were calculated above 0.7 and strong relationships were observed between the data. It was concluded that the scale was consistent in all areas.

Conclusion: All data obtained from the Turkish version of the European Organisation for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire - Sexual Health 22 are valid and reliable.

Keywords: Cancer, quality of sexual life, sexual health

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Cancer is a prevalent and chronic disease affecting both men and women worldwide. According to the Global Cancer Observatory (GLOBOCAN), there were 19.3 million new cases of cancer and nearly 10 million cancer-related deaths worldwide in 2020. These statistics suggest that one in five individuals may develop cancer during their lifetime.[1] Predictions indicate a 47% rise in cancer cases by 2040 compared to 2020 figures, attributed to population growth and aging.[2] Despite the increasing number of new cancer cases, it is believed that early detection and treatment options will decrease cancer-related mortality rates, particularly for certain types of cancer.[3]

The disease, its treatment-related side effects, and the physical, emotional, social, and economic changes during the treatment process have negative effects on the quality of life of patients.[4] Consequently, the assessment of oncology patients' quality of life and psycho-oncological interventions have gained importance. It is necessary to determine to what extent life is affected and to support these areas.[5,6]

Factors affecting the quality of life in cancer patients include sexuality, as cancer treatments can directly or indirectly impact sexual functions. The disease itself or its treatment may harm physical structures, and hormonal changes can also adversely affect sexual functions. Changes in body image, self-esteem, fatigue, pain, emotional problems, or other psycho-social factors also play a significant role in sexual function.[7-9] The perspective on sexuality in cancer varies; for some patients, sexuality becomes less important in the face of a life-threatening illness, while for others, it gains importance by emphasizing the remaining pleasure, vitality, and emotional connection.[7]

Sexual dysfunction prevalence in cancer patients is generally reported between 40% and 100%. The most common sexual problem in both female and male patients is loss of sexual desire.[8,10]

A study involving patients diagnosed with early-stage cervical cancer found that treatment options that entail less physical damage compared to surgical methods result in less impairment to the quality of life and sexual functioning of patients.[11] However, in individuals undergoing gynecological cancer treatment, psychological issues such as fear, anxiety, depression, and negative body image stemming from cancer and its treatment can contribute to sexual dysfunctions.[9]

In a study on sexual problems in male cancer patients, various negative impacts such as decreased sexual desire and activity, erectile dysfunction, impaired ability to maintain an erection during intercourse, and overall decrease in sexual satisfaction were reported, varying depending on cancer types and treatment methods. Additionally, psychological effects such as stigma, emotional and social isolation, and body image deterioration were noted to potentially negatively affect sexual functions in patients.[12]

Studies have shown that patients who undergo radical prostatectomy often experience urinary incontinence and erectile dysfunction. A research was conducted on patients above 65 years of age who had undergone radical prostatectomy to investigate the impact of physical activity on these conditions. The findings revealed that physical activity can help prevent urinary incontinence, but it does not have a significant effect on erectile dysfunction.[13]

To preserve patients' sexual health, efforts should be made to minimize potential harm to sexual functions, enhance the ability to experience pleasure and express sexuality, and assist patients in finding new alternative methods, even if sexual functions are impaired.[8,10] To detect sexual problems early, it is essential to identify the factors causing sexual problems and routinely assess patients' sexual functions.[12]

Cancer patients undergoing treatment often face sexual dysfunctions, and these challenges may continue even after they become cancer survivors. One potential solution to this issue is to provide counseling to patients to help them understand the potential sexual issues that may arise during or after treatment and to offer potential solutions. This can greatly assist both patients and survivors in navigating this aspect of their journey with greater comfort.[14]

Unfortunately, there is no specific quality of sexual life assessment scale designed for cancer patients in our language. Generally, sexual function scales applied to the entire population are used, which are insufficient to distinguish some symptoms specific to cancer patients. In this context, we aimed to conduct a validity and reliability study of the Turkish version of the European Organisation for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire - Sexual Health 22 (QLQ-SH22)[15] which is specifically prepared for cancer patients, to assess their quality of sexual life, routine follow-up, and counseling.

Methods

Statistical Analysis and Procedures for Data

Statistical analyses were conducted using the R programming language v4.3.1 (Vienne, Austria: R Foundation) and RStudio software v2023.09.0 (Massachusetts, Boston: Posit Software). Psych v2.3.9, lavaan 0.6-16, and lavaanPlot v0.6.2 packages were employed for factor analysis.

The adequacy of the sample size and the suitability of the data for factor analysis were determined using the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. A KMO

score above 0.6 and a p-value less than 0.05 for the Bartlett test indicated the data's suitability.[16]

Validity and Reliability Analysis

The construct validity of the scale was assessed through factor analysis, utilizing the Unweighted Least Squares (ULS) as the estimation method. The appropriateness of the identified model was determined by goodness-of-fit indices.

The internal consistency of the scale was examined using Cronbach's alpha coefficient, with a threshold of 0.7 or higher considered valid.[17] Consistency was also evaluated by applying the Spearman Correlation Test between scores obtained from the scale applied to the same sample group at two different times, using 0.4 as the minimum threshold.[18]

For statistical analysis, a significance threshold of 0.05 was set.[19] Descriptive statistics such as mean, standard deviation (SD), median, interquartile range (IQR), sample size (n), and proportions were used to express the data.

Normal distribution of the data was checked using the Shapiro-Wilk Normality test. Relationships between numerical data were explored through Pearson and Spearman Correlation tests. Relationships between categorical data were analyzed using the chi-squared test, and differences in proportions were compared using the proportion test. Differences in numerical data between groups were examined with t-test and Mann Whitney U test.

Translation and Equivalence

To ensure language equivalence, two expert translators proficient in English and specialized in oncology independently conducted two translations. A consensus translation was achieved through agreement between the translations, followed by a back-translation into English by two individuals proficient in both English and Turkish. The translated version was compared with the original scale by experts from the European Organisation for Research and Treatment of Cancer (EORTC). A pilot test was conducted with 10 oncology patients to assess the understandability of the translated version. After incorporating feedback and obtaining approval from EORTC, the final version of the translated scale was established.

Sampling

The sample group comprised patients receiving inpatient or outpatient treatment and follow-up at the medical oncology units of two private hospitals in Istanbul. Patients aged between 18 and 75, regardless of cancer type, treatment stage, or form, were selected. Patients whose native language was not Turkish, those without any diagnosis, those who could not read or write, and those with any illness impairing consciousness were excluded. Only responses from individuals able to answer the questions completely were included in the study.

Data Collection Tools

Informed Consent Form

Participants were initially provided with an informed consent form, explaining the research and declaring their voluntary participation. The form included information about the voluntary nature of participation and principles of confidentiality.

Sociodemographic Data Form

Information such as gender, age, marital status, education level, diagnosis, stage of cancer, family history, history and timing of surgery, past or concurrent treatments, and treatments received during the study was obtained from the dataset.

Quality of Life Questionnaire - Sexual Health 22 (QLQ-SH22) - Quality Of Sexual Life Assessment Scale In Cancer Patients

QLQ-SH22 consists of 18 general questions and 2 different questions for both genders. Questions 14 and 15 are designed for males, while questions 16 and 22 are specific to females. Questions 3, 4, 10, 12, 17, 18, 19, 21 assess sexual satisfaction, and questions 8, 11, 20 assess sexual pain using multiple-choice question types. Additionally, there is one single-item question for each of the following: sexual activity (1), decreased libido (2), incontinence (5), fatigue (6), treatment (7), communication with professionals (9), partnership (13), confidence erection (14), body image (15, 16), and vaginal dryness (22). Questions between 18 and 22 are conditional questions answered by patients who have been sexually active in the past four weeks. QLQ-SH22 is a four-point Likert scale, with items scored from 1 to 4 (1=Not at all, 2=A little, 3=Quite a bit, 4=Very much). Items 7, 10, 11, 12, 13 have an 'Invalid' option, and questions marked as 'Invalid' are not included in the scoring.

Ethical Considerations

Collaboration with the European Organisation for Research and Treatment of Cancer (EORTC) was established to adapt the Scale for Quality of Sexual Life Assessment Scale in Cancer Patients to the Turkish language, and necessary permissions were obtained from the institution. Ethical committee approval for data collection and implementation of the study was obtained from the Acibadem MAA University Medical Research Evaluation Committee on February 24, 2023, with document number 2023-03/63. The study was carried out in accordance with the Declaration of Helsinki.

Results

Demographic Characteristics

Demographic characteristics are indicated in Table 1. Upon examination of the survey scores, it is observed that the obtained scores vary, generally concentrating in the first or second quartile. While the scores take various values in the range of 0-100, the minimum total score is 11.25, and the mean score is found to be 50.72±19.90 (Table 2).

Validity Conclusions

Language Validity

A pilot test was conducted after the translation-retranslation and consensus translation for the language equivalence of QLQ-SH22. After the adjustments were approved by EORTC, the final version of the translation was completed. When the items of the translated scale were compared with the original scale in terms of meaning, it was determined that there was no change in meaning in the scale.

Table 1. Demographic characteristics of participants (n=201)

Features	Characteristic	Frequency (n)	Proportion (%)
Sex			
	Male	71	35.32
	Female	130	64.68
Marital status			
	Single	38	18.91
	Married	163	81.09
Educational Status			
	Primary School	9	4.48
	High School	47	23.38
	University	125	62.19
	Master / PhD	20	9.95
Live with			
	Extended family	19	9.45
	Only children	7	3.48
	Only spouse	51	25.37
	Spouses & children	107	53.23
	Alone	13	6.47
	Others	4	2.00

Table 2. Descriptive statistics of survey scores

Features	Sample Size (n)	Mean (SD)	Median (IQR)	Range (Min; Max)
Sexual activity	201	54.39 (32.21)	66.67 (33.33; 66.67)	100 (0; 100)
Decreased Libido	201	53.23 (33.53)	33.33 (33.33; 100)	100 (0; 100)
Incontinence	201	22.22 (34.69)	0 (0; 33.33)	100 (0; 100)
Fatigue	201	54.06 (34.58)	66.67 (33.33; 100)	100 (0; 100)
Treatment	184	59.78 (34.33)	66.67 (33.33; 100)	100 (0; 100)
Communication with Professionals	200	84.00 (27.95)	100.00 (66.67; 100)	100 (0; 100)
Partnership	173	39.69 (32.42)	33.33 (0; 66.67)	100 (0; 100)
Confidence Erection	71	56.34 (30.13)	66.67 (33.33; 66.67)	100 (0; 100)
Body image (male)	70	23.81 (27.88)	33.33 (0; 33.33)	100 (0; 100)
Body image (female)	129	44.96 (37.42)	33.33 (0; 66.67)	100 (0; 100)
Vaginal Dryness	65	45.13 (33.04)	33.33 (33.33; 66.67)	100 (0; 100)
Sexual Satisfaction	201	65.11 (23.68)	66.67 (50.00; 80.00)	100 (0; 100)
Sexual Pain	201	32.03 (34.53)	22.22 (0; 55.56)	100 (0; 100)
Total Score	201	50.72 (1990)	50.76 (35.48; 64.00)	88.75 (11.25; 100)

Construct Validity

To check the suitability of the data for structural validity analysis, KMO and Bartlett's Globality tests were applied. A KMO score of 0.81 was obtained, indicating that the sample size is suitable for factor analysis as it is above the threshold value of 0.6. The p-value of Bartlett's Globality test was found to be less than 0.0001, indicating that factor analysis can be applied as it is below the significance limit of 0.05 (Table 3).

Exploratory factor analysis and confirmatory factor analysis were used to analyze the findings regarding the construct validity of the scale.

Exploratory Factor Analysis Findings

According to the results of Exploratory Factor Analysis (EFA), when the scores consisting of multiple questions were examined, three distinct groups were identified. One of these groups forms the sexual pain subscale, while another group forms a three-question subset from the sexual satisfaction subscale (Questions 3, 4, and 17).

Among the questions of the sexual satisfaction subscale; a correlation of 0.6 was calculated between the 1st group consisting of questions 10, 12, 18, 19, 21 and the 3rd group consisting of questions 3, 4, and 17. A correlation of -0.37 and -0.49 was observed between the groups formed by the sexual pain factor (Fig. 1). The model created explains 67% of the variation in the data. The lowest factor loading was observed in question 12 with 0.45.

Confirmatory Factor Analysis

The results of the Confirmatory Factor Analysis (CFA) yielded a Comparative Fit Index (CFI) of 0.989 and a Tucker-Lewis Index (TLI) of 0.985. Values above 0.950 indicate a high level of model compatibility. The Goodness of Fit Index (GFI) value of 1.322 and the Root Mean Square Error of Approximation (RMSEA) value of 0.040 to 0.080 support the accuracy of the model by remaining below the threshold values of 2.5 and 0.080, respectively. The Standardized Root Mean Square Residual (SRMR) value was found to be 0.088, slightly above the threshold of 0.080. Model fit statistics support the system consisting of three groups. All p-values for factor loadings are below 0.0001, indicating statistical significance.

Table 3. KMO and Bartlett test results

Kaiser-Meyer-Olkin Sampling Adequacy (KMO)	0.81
Bartlett's Global Power Test	
Chi-squared	121.17
Degrees of freedom	21
p	<0.0001

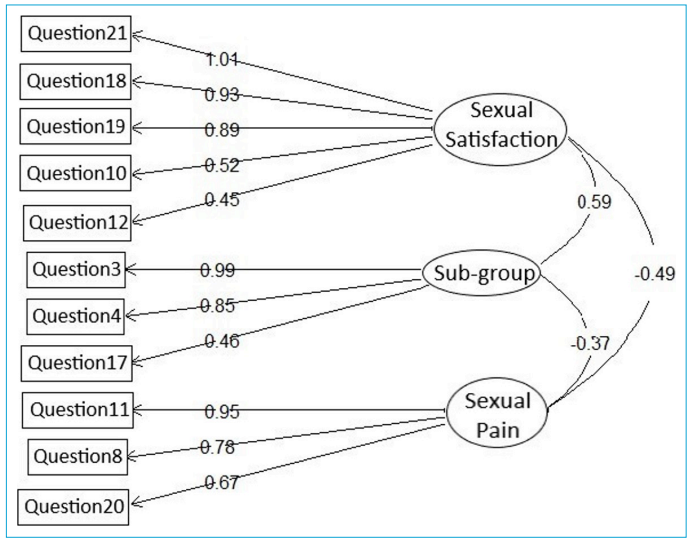

Figure 1. Groups identified with exploratory factor analysis and correlation coefficients.

While a correlation of 0.66 was observed among the sexual satisfaction groups, correlations between the sexual pain group and these groups were -0.46 and -0.42 ($p<0.0001$) (Fig. 2). The lowest value was 0.57 for question 10, and the highest factor loading was 0.98 for question 11 (Table 4).

Reliability Conclusions

Internal Consistency Analysis

For the internal consistency analysis, the relevant questions for scores consisting of multiple questions were subjected to Cronbach's alpha analysis. The obtained values for sexual satisfaction, sexual pain, and all questions were 0.91, 0.79, and 0.88, respectively. According to the commonly used classification for Cronbach's alpha in the literature, a Cronbach's alpha value ≥0.9 indicates excellent reliability, 0.7≤α<0.9 is good, 0.6≤α<0.7 is acceptable, 0.5≤α <0.6 is weak, and α<0.5 indicates unacceptable reliability. [20] According to the results obtained, the sexual satisfaction

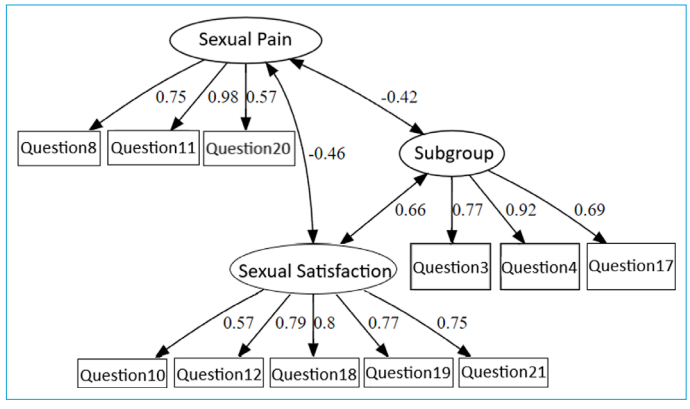

Figure 2. Groups identified with confirmatory factor analysis and correlation coefficients.

Table 4. Factor loadings for confirmatory factor analysis

Score/Question	Standardized Factor Loadings (%95 Confidence level lower and upper limits)
Sexual Satisfaction	
Question 10	0.568 (0.475; 0.660)
Question 12	0.795 (0.681; 0.909)
Question 18	0.799 (0.648; 0.949)
Question 19	0.773 (0.640; 0.906)
Question 21	0.754 (0.616; 0.891)
Sexual Satisfaction Subgroup	
Question 3	0.773 (0.633; 0.913)
Question 4	0.917 (0.746; 1.087)
Question 17	0.691 (0.542; 0.841)
Sexual Pain	
Question 8	0.746 (0.640; 0.852)
Question 11	0.976 (0.837; 1.116)
Question 20	0.572 (0.419; 0.725)
Model Fit Statistics	
Chi-squared Statistics (Goodness of fit index)	1.322
Comparative Fit Index (CFI)	0.989
Tucker-Lewis Index (TLI)	0.985
Root Mean Square Error of Approximation (RMSEA)	0.040 (p: 0.701) (%90 Level of Trust: 0.000; 0.067)
Standardized Root Mean Square Residual (SRMR)	0.088

subscale is at an excellent level, the sexual pain subscale is at a good level, and the overall scale is at a good level of reliability (Table 5).

For the consistency analysis of the scale, the relationship between the data collected at two different times using the test-retest method was examined by applying the Spearman Correlation Test. The lowest correlation was obtained with a score of 0.74 for fatigue and professional communication, while the highest score was 0.92 observed in the total score. Since all coefficients are above 0.7, a strong re-

Table 5. Internal consistency and consistency analysis results

Score	Cronbach Alpha	Test-Retest Correlation Coefficient (rho)	Test-Retest p	Sample Size (n)
Sexual Satisfaction	0.91	0.85	<0.0001	201
Sexual Pain	0.79	0.85	<0.0001	201
Sexual activity	-	0.84	<0.0001	201
Decreased Libido	-	0.86	<0.0001	201
Incontinence	-	0.88	<0.0001	201
Fatigue	-	0.74	<0.0001	201
Treatment	-	0.77	<0.0001	182
Communication with Professionals	-	0.74	<0.0001	200
Partnership	-	0.78	<0.0001	169
Confidence Erection	-	0.82	<0.0001	71
Body image (Male)	-	0.76	<0.0001	70
Body image (Female)	-	0.86	<0.0001	127
Vaginal Dryness	-	0.86	<0.0001	61
Total Score	0.88	0.92	<0.0001	201

lationship was observed between the values obtained at two different times for all scores, concluding that the scale is consistent in all areas (Table 5).

Clinical Validity Criteria

For clinical validity, the distribution of patients has been examined based on diagnosis, treatment, surgery, and family history. When looking at the distribution of patients according to diagnoses, breast malignant neoplasm is the highest group with 37.8%, while the rates for other diagnoses vary between 7% and 13%. Urinary system and head-neck cancers are observed in the least number of cases, 4 and 6 individuals, respectively.

At the time of diagnosis, cancer stages are similar among participants and vary between 19% and 31%. The age at diagnosis ranges from 16 to 75 years, with an average age of 46.8±10.7. A total of 157 people have undergone surgery, and the average age at surgery is 46.7±10.9. Patients generally undergo surgery within 24 days of diagnosis. One-third of the participants are in follow-up status, while others are under treatment (Table 6).

Table 6. Clinical validity criteria

Features	Features subgroup	Frequency (n)	Percentage (%)
Diagnostic Group	Lower Gastrointestinal System	26	12.94
	Head & Neck Cancers	6	2.99
	Bronchial or Lung Malignant Neoplasm	21	10.45
	Other	19	9.45
	Male Reproductive System	14	6.97
	Gynecological Cancers	19	9.45
	Breast Malignant Neoplasm	76	37.81
	Urinary System	4	1.99
	Upper Gastrointestinal System	16	7.96
Cancer Stage at Diagnosis	1	39	19.4
	2	46	22.89
	3	54	26.87
	4	62	30.85
Family History	Yes	101	50.25
	No	100	49.75
Surgery	Yes	157	78.11
	No	44	21.89
Past Treatments			
Past Chemotherapy	Yes	151	75.12
	No	50	24.88
Past Radiotherapy	Yes	90	44.78
	No	111	55.22
Past Hormonotherapy	Yes	50	24.88
	No	151	75.12
Past Immunotherapy	Yes	13	6.47
	No	188	93.53
Past Targeted Therapy	Yes	45	22.39
	No	156	77.61
Follow-up/Active treatment	Follow-up	61	30.35
	Active treatment	140	69.65
Current Treatments			
Current Chemotherapy	Yes	66	32.84
	No	135	67.16
Current Radiotherapy	Yes	11	5.47
	No	190	94.53
Current Hormonotherapy	Yes	45	22.39
	No	156	77.61
Current Immunotherapy	Yes	21	10.45
	No	180	89.55
Current Targeted Therapy	Yes	28	13.93
	No	173	86.07

Among the patients participating in the scale, 62.2% have received at least one treatment before. The most commonly received treatment in the past is chemotherapy with 75.1%. Following chemotherapy, in terms of application rate, radiotherapy, targeted therapy, hormonotherapy, and immunotherapy follow. Currently, 142 individuals are undergoing treatment. The highest type of treatment is chemotherapy with 32.8%. Hormonotherapy, with 22.4%, is the second most common treatment, while other types are below 15% (Table 6).

Discussion

The aim of the study was to determine the linguistic equivalence, validity, and reliability of the Quality of Sexual Life Assessment Scale in Cancer Patients.

For linguistic equivalence of QLQ-SH22, after the translation, back-translation, and consensus translation by expert translators fluent in English, the translated scale items were compared with the original scale items, and it was determined that there was no change in meaning in the scale. Based on the obtained information, it was concluded that the linguistic validity of the scale was ensured.

The Kaiser-Meyer-Olkin (KMO) and Bartlett Global Power tests were applied for the analysis of structural validity. The KMO score was obtained as 0.81, and since it is above the threshold value of 0.6, it was concluded that the sample size is suitable for factor analysis. Bartlett Global Power test p-value below 0.05 significance level is required to analyze data with factor analysis, and the p-value obtained from the test was less than 0.0001.

When exploratory factor analysis was performed on scores consisting of multiple questions, three different groups were observed. One of the groups constituted the sexual pain subscale questions, while a subgroup of three questions (Question 3, 4, and 17) from the sexual satisfaction subscale also formed.

Question 17 from the sexual satisfaction set is a conditional question. If the 'Not at all' option is marked for question 17, the subsequent questions are not considered for evaluation. Therefore, questions 18, 19, and 21 of the sexual satisfaction set are relative to question 17. The other two questions that make up the first group, questions 10 and 12, are also those where the 'invalid' option can be marked, indicating a possibility of not receiving a score. However, the questions comprising the second subgroup of the sexual satisfaction subscale, questions 3, 4, and 17, are questions that all patients must answer. The formation of these two subgroups in the sexual satisfaction subscale can be explained in this way.

Among the questions of the sexual satisfaction subscale, a correlation of 0.6 was calculated between the 1st group consisting of questions 10, 12, 18, 19, 21 and the 3rd group consisting of questions 3, 4, and 17. The correlations between the sexual pain factor and the formed groups were -0.37 and -0.49. The model explained 67% of the variance in the data.

For confirmatory factor analysis, goodness of fit indices were examined. The CFI and TLI were calculated as 0.98, indicating high model fit. The GFI value was 1.32, and the RMSEA value was 0.04, both below the threshold values, supporting the accuracy of the model. The SRMR value was 0.088, slightly above the threshold of 0.080. The model fit statistics support the three-group system. The p-values for all factor loadings were below 0.0001 and were found to be statistically significant.

The internal consistency of the scale was evaluated using Cronbach's alpha analysis. Values of 0.91, 0.79, and 0.88 were obtained for sexual satisfaction, sexual pain, and all questions, respectively. According to the calculated results, the sexual satisfaction subscale was found to be excellent, the sexual pain subscale was good, and the overall scale was found to be reliable.

For the consistency analysis of the scale, a relationship was sought between the data taken at two different times using the test-retest method and the Spearman Correlation Test. Strong correlations (all coefficients above 0.7) were observed for all scores, indicating consistency in all areas of the scale.

Limitations and Recommendations

In line with the interviews and observations made during the research, it was observed that cancer patients often put their sexual lives into the background. This is influenced by physiological reasons as well as insufficient knowledge, concerns about harming themselves or their partners, beliefs that sexual problems will not be resolved, and postponement of pleasurable activities during treatment. These observations are open to further research.

In our study, the average total sexual life quality health score of the QLQ-SH22 scale was found to be 50.72±19.9. The scoring range from 0 to 100 (0=no problem in sexual life, 100=serious problem in sexual life) indicates that, on average, cancer patients' sexual life quality is moderate. However, it should be noted that our study sample is limited in examining it in detail. It should be taken into consideration that this average may be caused by the evaluation of follow-up and active treatment patients together.

Conclusion

Based on all the obtained data, it can be concluded that the Turkish version of the 'QLQ SH22 Quality of Sexual Life Assessment Scale in Cancer Patients' is valid and reliable.

Disclosures

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Ethics Committee Approval: The study was approved by the Acibadem MAA University Medical Research Evaluation Committee (date: 24.02.2023, no: 2023-03/63).

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Conflict of Interest: No conflict of interest related to this article.

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Authorship Contributions: Concept – O.E., S.B.E.; Design – O.E., S.B.E.; Supervision – O.E.; Data collection &/or processing – S.B.E., O.M.C., E.S.T.; Analysis and/or interpretation – I.S., S.B.E.; Literature search – S.B.E.; Writing – S.B.E., I.S., O.M.C.; Critical review – O.E.

Use of AI for Writing Assistance: Artificial intelligence-supported technologies were not used in the study.

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