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TRANSLATION, CULTURAL ADAPTATION AND PSYCHOMETRIC ANALYSIS OF URDU VERSION OF STROKE SPECIFIC QUALITY OF LIFE SCALE IN STROKE PATIENTS

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ABSTRACT

Background: The leading cause of adult disability globally is stroke. Although stroke is rated as the third major cause of mortality in wealthy nations, it is the second major cause of mortality in developing nations. With an ageing population, this noncommunicable disease's socioeconomic significance is increasing.

Objective: To translate, validate and culturally adapt the Urdu version of Stroke Specific Quality of Life in Stroke patients.

Methodology: A cross-sectional study was conducted on 147 (35-65 years) stroke patients at the Physiotherapy Department of the University of Lahore Teaching Hospital through non-probability convenient sampling technique. There were two stages to the research: 1) Translation and cultural adaptation 2) Testing psychometric properties. A final Urdu version was developed by following Beaten guidelines throughout the translation, adaptation and measuring the psychometric properties.

Results: The Urdu SS-QOL demonstrated good test-retest reliability (ICC= 0.812 (0.790-0.814); CI=95%). Good internal consistency of SSQOL-U was obtained as Cronbach's alpha value was 0.810. The study observed a moderate to strong positive convergent validity (Pearson correlation between SS-QOL and Short form 12; r= 0.52-0.99). Factor analysis revealed 12 subdomains of SSQOL-U or all 49 items.

Conclusion: Study has successfully translated, culturally adapted, and validated the Urdu version of the Stroke-specific Quality of Life (SS-QOL) scale for stroke patients within the Pakistani population. The SS-QOL Urdu version has demonstrated good test-retest reliability, internal consistency, and validity, making it a reliable tool for assessing the quality of life in this specific patient group. The study also stands out for conducting principal component analysis, consistently revealing 12 subdomains similar to the original English version.

Keywords: Cultural adaptation, Psychometric properties, Quality of life, Reliability, Short form 12, SSQOL-U, Stroke, Translation, Validity

INTRODUCTION

The leading cause of adult disability globally is stroke. Although stroke is rated as the third major cause of mortality in wealthy nations, it is the second major cause of mortality in developing nations.[1] With an ageing population, this noncommunicable disease's socioeconomic significance is increasing. Additionally, it is a significant contributor to long-term impairment and has potential negative effects on patients, their families, and healthcare systems from both an emotional and socioeconomic standpoint. Data on stroke mortality from several nations show that, overall, fatality rates have dropped in recent decades. [2] Stroke has a negative effect on one's HRQoL in the short- and long-term.[3] Stroke-related disability is a significant predictor of HRQoL. [4] A thorough evaluation of health and healthcare must consider how a stroke affects Quality of Life (QoL), since doing so can assist determine how well various strategies are working to prevent and treat strokes. [5]

Stroke is a crippling neurological condition that significantly impairs the physical and psychological well-being of survivors. According to projections, there will be 77 million stroke victims worldwide by 2030, up from 62 million in 2005. [6] The top cause of disability and death is still stroke. Worldwide, stroke accounts for 43.7 million less disability adjusted life years (DALYs) each year (about 3.2 percent of all lost DALYs). [7] After a stroke, many survivors experience varying degrees of physical or psychological difficulties, such as limb weakness, vision or cognitive impairment, poor self-esteem, or depression. Their quality of life in terms of their health may be impacted because they struggle to participate in activities or reintegrate into their former familial or social duties (HRQOL). [8]

When creating a questionnaire for use in a different context, a procedure known as "cross-cultural adaptation" takes into account both linguistic (translation) and cultural adaption concerns. [9] Beaten guidelines are standard to develop a questionnaire into a new language, measure it’s psychometric properties and culturally adapt into a new population. By Williams, Weinberger, Harris, and Clark in 1999, the SS-QOL was published and verified for the first time. Since the SS-QOL is meant to be self-administered, no training is necessary. According to one study, stroke victims can be accurately measured using the scale over the phone. The SS-QOL scale may be finished in 10 to 15 minutes. The SS QOL score increases with improved functioning. Cronbach's alpha values varied from satisfactory (alpha = 0.75 for the work/productivity subscale) to outstanding (alpha = 0.89 for self-care) in Williams’ et al. (1999a) investigation of the internal consistency of the SS-QOL in 34 stroke patients, indicating that the SS-QOL has a good internal consistency.[10]

Stroke Specific Quality of Life has already been translated into Arabic[11], Brazilian[12], Persian[2], Daish[13], Turkish[14], Yoruba[15], Nigerian-Yoruba[5], Swahili[16], Korean[17], French[18], Amharic language[19], Chinees[20], Mexican[21], Marathi[22], Igbo[23], Norwegian[24] and Hausa[25]languages. Psychometric properties have also been measured alongwith cross cultural adaptations in different nations and populations across the word.
Nearly 100 million individuals worldwide are believed to speak Urdu as their living language. Urdu shares the official language status with English in Pakistan. Moreover, it is spoken and understood in parts of the Middle East, India, Bangladesh, Nepal, and several other nations where Pakistani communities have a presence. Urdu, belonging to the Indo-Aryan branch of the Indo-European language family, is used by more than 100 million people as a second language, primarily in Pakistan and India, where approximately 70 million people consider it their native

language. Besides its formal recognition or "scheduling" in the Indian constitution, Urdu serves as the official state language of Pakistan.

The present study endeavors to address this gap by translating the Stroke Specific Quality of Life questionnaire into Urdu, enabling a culturally adapted and accessible assessment tool. By assessing the validity of the obtained scores within the Pakistani population, this study aims to establish the reliability and effectiveness of the Urdu version. Consequently, this will serve to bridge the literature gap in stroke-related quality of life assessments among Urdu speakers in Pakistan. In doing so, this research strives to provide valuable insights and a comprehensive tool for clinical setups across diverse settings, urban or rural. By introducing a standardized gold standard test, healthcare professionals can confidently make accurate diagnoses and prognoses for their stroke patients. The Stroke Specific Quality of Life questionnaire, with its 49 self-report items encompassing 12 energy-related domains, is poised to contribute substantially to a more thorough understanding of stroke's impact on the quality of life within the Urdu-speaking population.

MATERIAL AND METHODS

A cross-sectional study was conducted on 147 stroke patients at the Physiotherapy Department of the University of Lahore Teaching Hospital, located on Defense Road, Lahore. The study was completed within a span of 9 months following the approval of the research synopsis. A non-probability convenient sampling technique was employed for participant selection. The inclusion criteria encompassed patients who had been diagnosed with stroke, were aged between 35 to 65 years[13], and possessed the ability to comprehend and communicate verbally in the Urdu language. Conversely, patients with other neurological conditions such as Parkinson's disease, Alzheimer's disease, or dementia, as well as unconscious individuals, were excluded from the study. Additionally, patients with musculoskeletal and orthopedic conditions that could potentially impact the functioning of their upper and lower extremities were also excluded.

All patients provided written informed consent, and approval was obtained from the Ethics Committee of the University of Lahore. The translated Urdu version of the SS-QOL questionnaire was utilized for data collection, following a four-step procedure. Initially, two native Urdu speakers independently translated the SS-QOL into Urdu. One translator had medical expertise, while the other came from a non-medical background (T1, T2). Their translations were merged into a single version. Subsequently, this combined version was retranslated back into English by two professional translators (BT1, BT2) who were unfamiliar with the questionnaire and medical terminology, ensuring consistent English translation. A research committee comprising physiotherapists, an orthopedic surgeon, translators, a language expert, and authors held a meeting. This committee assessed all versions of the SS-QOL (T1, T2, T-12, BT1, BT2, B-12) for alignment with Urdu cultural nuances and methodological accuracy. They approved a pre-final SS-QOL version after methodological and grammatical analysis. Seventy patients confirmed their comprehension of the questions (pilot testing), and their feedback was deliberated upon by the authors. A final Urdu version of the SS-QOL was then established.

Statistical Analysis: Analysis was carried out on SPSS version 21. Quantitative variables were presented with mean± SD, and qualitative variables were tabulated with frequency and percentage. Reliability was determined by test-retest reliability across repeated measures, internal consistency, and measurement errors. Test-retest reliability was determined using an intra-class correlation coefficient (ICC) at 95% confidence intervals (CIs). Internal consistency was determined with Cronbach’s alpha. Measurement error was determined by calculating the standard error of measurement (SEM) [26] and the Minimal detectable change (MDC). The

formulas used to calculate SEM and SDC are SEM = SD × √ 1 – ICC [27] and SDC = 1.96 × √2 × SEM, [28] respectively. The instrument is considered more reliable if the value of SEM is less. [29] SEM values ≤ 2.15-6.5 and MDC values between ≤ 6-13.7[26] are acceptable. Content validity was determined by using the floor and ceiling effects. Convergent validity was measured with Pearson correlation coefficient (r) between SF-12 and SS-QOL. Its scoring plus interpretation was made according to the value ranging from -1 to +1. In this, 0 portrays no relationship; a value in plus presents a positive relationship, whereas a correlation value in negative exhibits a negative relationship between both variables.

RESULTS

The stroke participants had a mean age of 50.88±9.24 years, with a minimum of 31 years and a maximum of 65 years. There were 84(57.1%) males and 63(42.9%) females in this study. Furthermore, 35(23.8%) were from the low-income class, 95(64.6%) were from Middle-income class, whereas 17(11.6%) were from High-income class. In the present study, the majority (55.1%) were affected by Hemorrhagic stroke, whereas only 5.4% of participants had suffered from stroke previously in their life. Out of all, 45(30.6%) subjects had Hypertension, 55(37.4%) had ischemic heart disease, 10(6.8%) had Metabolic Syndrome, 21(14.3%) had Diabetes Mellitus, and 16(10.9%) had Obesity as Stroke predisposing factors.

In addition, domain wise descriptive statistics is given in table I for stroke specific quality of life (Urdu version) at day 1 and day 3.

Table I: Descriptive statistics of Stroke Specific Quality of Life; subscales total scores at Day 1 and Day 3 (n=147)

Variables	At Day 1		At Day 3	
	Mean	SD	Mean	SD
Energy	7.70	1.89	8.07	2.12
Family Role	8.22	2.43	8.18	2.19
Language	13.63	4.01	13.60	2.73
Mobility	16.29	4.53	16.24	3.09
Mood	13.55	3.85	13.53	2.51
Personality	8.01	2.38	7.86	2.19
Self-Care	13.40	3.60	12.25	2.70
Social role	13.63	4.01	12.90	3.06
Thinking	8.24	2.43	7.82	2.12
Upper Extremity Function	13.54	3.97	12.52	2.66
Vision	8.05	2.64	7.48	2.00
Work/ Productivity	8.05	2.41	7.61	2.30

With 147 respondents, the Urdu-SSQOL showed good test-retest reliability, (ICC= 0.812 (0.790-0.814); CI=95%). Good internal consistency of SSQOL-U was obtained as Cronbach's alpha value was 0.810. Item total correlation value of 0.83, which is also confirming that SSQOL-U is internally consistent. SEM and MDC of SSQOL-U was 2.29 and 6.34.

Table II: Test-retest reliability, Internal Consistency, Inter-Item Correlations and Measurement errors and for SSQOL-U

1st measurement	11.02 ± 2.41
2nd measurement	10.67 ± 3.10
Item total correlation	0.83
Cronbach's alpha	0.81
ICC (95% CI)	0.812 (0.790-0.814)
SEM	2.29
MDC	6.34

For Convergent validity, SS-QOL should have to be compared with the general quality of life questionnaire. SF-12 is the mini version the of gold standard questionnaire; SF-36. All domains of SSQOL-U were correlated with total score of SF-12 which revealed moderate to excellent positive relationship between both tools. Conclusively; Family role, mood, self-care, social role and vision secured moderate convergent validity whereas energy, language, mobility, personality, thinking, upper extremity function and work/productivity had excellent convergent validity with statistically significant results (r=0.52-0.99).

Table III: Pearson Correlation of SSQOL-U score with SF-12 (Domain wise).

Variables	r	p-value
Energy vs SF12	0.89	0.023
Family Role vs SF12	0.67	0.035
Language vs SF12	0.84	0.021
Mobility vs SF12	0.99	0.000
Mood vs SF12	0.54	0.000
Personality vs SF12	0.86	0.015
Self-Care vs SF12	0.52	0.053
Social role vs SF12	0.54	0.052
Thinking vs SF12	0.83	0.028
Upper Extremity Function vs SF12	0.87	0.021
Vision vs SF12	0.62	0.041
Work/ Productivity vs SF12	0.87	0.024

For Urdu version of SS-QOL; the percentage of respondents scoring highest score (ceiling effect) and the percentage of respondents scoring lowest score (floor effect) was calculated. The results show varying degrees of floor and ceiling effects across different sub-scales. For instance, the "Mobility," "Upper Extremity Function," and "Personality" sub-scales had notable floor effects, with a significant portion of participants scoring at the lower end. On the other hand, the "Social Role" and "Family Role" sub-scales exhibited ceiling effects, where many participants achieved the highest scores. Overall, it demonstrated relatively acceptable to good content validity.

Table IV: Descriptive statistics and number of subjects reporting Floor and Ceiling Effect

Sub Scales	Mean ± SD	Median	Floor Effect	Ceiling Effect
			Worst Possible Score	Best Possible Score

Energy	8.07±2.12	7	33%	11%
Family Role	8.18±2.19	8	24%	12%
Language	13.60±2.73	12	24.5%	11.4%
Mobility	16.24±3.09	8	25.2%	8.5%
Mood	13.53±2.51	13	24%	7.8%
Personality	7.86±2.19	12	26.33%	9.23%
Self-Care	12.25±2.70	8	26.2%	11.4%
Thinking	12.90±3.06	13	21.66%	8%
Upper Extremity Function	7.82±2.12	16	26.4%	8.8%
Social Role	12.52±2.66	14	25%	13.4%
Vision	7.48±2.00	8	25.33%	7.66%
Work/Productivity	7.61±2.30	8	24.66%	9.66%

After checking the sampling adequacy through Kaiser-Meyer-Olkin (KMO) with value of 0.677 & Sphericity test through Bartlett's test with statistically significant results ($p<0.00001$). Table V shows principal component analysis with eigenvalues of all 49 items, that indicates twelve components based on extraction sums and rotation sums of squared loading. Component covariance also shows twelve component extractions.

Table V: Factor Analysis (Principal Component Analysis)

Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.035	16.398	16.398	4.282	8.738	8.738
2	3.791	7.737	24.135	1.965	4.010	12.749
3	2.671	5.450	29.585	1.332	2.719	15.468
4	2.118	4.323	33.908	2.471	5.043	20.511
5	2.038	4.160	38.068	3.064	6.253	26.763
6	1.752	3.575	41.644	2.114	4.315	31.079
7	1.695	3.460	45.103	1.978	4.037	35.116
8	1.411	2.880	47.983	1.489	3.038	38.154
9	1.383	2.822	50.805	1.098	2.240	40.394
10	1.374	2.804	53.610	1.002	2.045	42.439
11	1.297	2.647	56.256	.967	1.974	44.413
12	1.169	2.387	58.643	.759	1.549	45.961
13	1.161	2.370	61.013			
14	1.132	2.310	63.323			
15	1.117	2.279	65.602			
16	1.059	2.160	67.762			
17	1.031	2.104	69.866			
18	.954	1.946	71.813			
19	.928	1.893	73.706			
20	.850	1.735	75.441			
21	.839	1.712	77.153			
22	.780	1.592	78.744			
23	.731	1.492	80.237			
24	.693	1.415	81.651			
25	.671	1.369	83.020			

26	.633	1.291	84.312	
27	.574	1.171	85.483	
28	.559	1.141	86.623	
29	.535	1.092	87.715	
30	.510	1.040	88.755	
31	.488	.995	89.750	
32	.473	.965	90.716	
33	.444	.907	91.622	
34	.410	.838	92.460	
35	.391	.799	93.259	
36	.370	.755	94.014	
37	.357	.729	94.743	
38	.332	.677	95.420	
39	.310	.632	96.052	
40	.284	.579	96.631	
41	.275	.560	97.192	
42	.238	.487	97.678	
43	.209	.426	98.104	
44	.193	.394	98.498	
45	.184	.376	98.875	
46	.175	.356	99.231	
47	.144	.295	99.526	
48	.121	.246	99.772	
49	.112	.228	100.000	

DISCUSSION

The study comprised 147 participants, with an average age of 50.88 ± 9.24. Among these participants, 57.1% were male, while 42.9% were female. A notable portion of the recruited patients hailed from middle-class backgrounds. Importantly, a majority of the enrolled patients had a history of hemorrhagic stroke. The Urdu version of the Stroke-specific Scale of Quality of Life demonstrated a Cronbach's alpha value of 0.81, indicative of robust internal consistency. Moreover, the study unveiled an Intraclass Correlation Coefficient (ICC) of 0.812, which signifies strong intra-rater reliability or test-retest reliability for the tool.

Marufat Oluyemisi Odetunde et al. (2020) translated the SS-QOL into the Igbo language, making minor adjustments from the original version. This translation displayed a spectrum of reliability from poor to good, with Intraclass Correlation Coefficients (ICCs) ranging from 0.48 to 0.84, and internal consistency ranging from weak to good, with values of 0.69 to 0.87. In contrast, the SS-QOL-U exhibited superior outcomes, demonstrating strong internal consistency and notably higher reliability. [23] Furthermore, In 2019, Sallam et al. developed the Arabic version of SSQOL using the same patient sample as in the current study, which comprised 147 participants. Conversely, the study also included 60 healthy subjects. For the purpose of Pearson correlation, SF-36 was employed instead of SF-12 as seen in the current study. While both instruments exhibited favorable psychometric properties, the Arabic version demonstrated superior outcomes in terms of both reliability and internal consistency. SSQOL-A exhibited moderate to excellent levels of convergent validity, ranging from 0.76 to 0.98, while SSQOL-U also demonstrated moderate to excellent validity with values ranging from r=0.52 to 0.99. [11]

In 2021, Kim et al. developed the SSQOL in the Korean language, conducting their study in South Korea with a notably larger sample size of 250 participants. In contrast, the present study involved 147 participants. The factor analysis of SSQOL-K revealed that its 49 items could be categorized into four subdomains, a departure from the consistency observed in the original version. Conversely, similar to the original English version, SSQOL-U yielded 12 subdomains for its 49 items. Both scales underwent comparison with different questionnaires to gauge their validity. The SSQOL exhibited mild to moderate validity, ranging from 0.42 to 0.768. In contrast, SSQOL-U displayed moderate to excellent validity, with values ranging from 0.52 to 0.99. The SSQOL-K achieved an exceptional Cronbach's α of 0.98, surpassing the alpha value of SSQOL-U. [17]

In 2018, Legris, Nicolas et al. conducted a study in the French language involving 47 participants from a population-based registry, assessing them three months post-stroke. In comparison, the current study encompassed a larger sample of stroke survivors, utilizing interviews as the data collection method. Similar to the present study, the test-retest reliability in their research reached near-excellence (ICC > 0.88), while internal consistency ranged from acceptable to good (Cronbach's alpha=0.65-0.991). However, the validity of SSQOL-F diverged from that of the current SSQOL version, with a correlation coefficient of r=0.58. [18]

Mojtaba Mahmoodi et. al checked the reliability and validity of the Persian version of stroke specific scale for quality of life. In contrast to the current study, the study observed Cronbach's alpha value to be 0.96 which means that Persian version has excellent reliability. Also, contrasting with the current study the internal consistency of Persian version has acceptable values. [2] In 2018, Suvarna and colleagues conducted a study involving 84 participants to evaluate the Indian Marathi version of the stroke-specific scale for quality of life. Their findings demonstrated excellent reliability and internal consistency in the Marathi version, slightly differing from the present study's results, where SSQOL-U exhibited strong psychometric properties. [22]

The SS-QOL Urdu version demonstrated favorable test-retest reliability and internal consistency, aligning with the validated and culturally adapted versions used globally. The present study underscores the SS-QOL Urdu's strong reliability and validity as an effective tool for stroke patients within the Pakistani population. To the best of the authors' knowledge, this study is exceptional, not only for translating the original SSQOL into Urdu but also for culturally adapting and validating it within the Pakistani context.

The study had few limitations; given the absence of an intervention, no treatment was administered, thus precluding the calculation of changes over time or responsiveness. The relatively short 48-hour interval for the retest may have retained memory effects. It's noteworthy that this validation is specific to one questionnaire and due to time constraints, criterion and face validity were not calculated. The study also highlights several strengths. Notably, despite encountering challenges during the translation and adaptation process, these obstacles were effectively addressed, with the Expert Review Committee contributing efficiently throughout. Remarkably, this study stands as one of the limited translated versions where principal component analysis was conducted, consistently revealing 12 subdomains that mirror those of the original English version of the scale. Consequently, SSQOL-U emerges as a convenient and user-friendly tool suitable for integration into various clinical settings.

CONCLUSION

Study has successfully translated, culturally adapted, and validated the Urdu version of the Stroke-specific Quality of Life (SS-QOL) scale for stroke patients within the Pakistani population. The SS-QOL Urdu version has demonstrated good test-retest reliability, internal consistency, and validity, making it a reliable tool for assessing the quality of life in this specific patient group. The study also stands out for conducting principal component analysis, consistently revealing 12 subdomains similar to the original English version.

Study Implications:

This study highlights the need for future investigations to further validate this instrument against more objective measures. Additionally, we recommend the translation of other questionnaires to gather comprehensive data from stroke patients. Such endeavors would not only enhance clinical documentation but also contribute to a broader understanding of the impact of stroke on patients' quality of life. Clinicians can confidently utilize this instrument to measure the impact of stroke on patients' quality of life. Incorporating the SS-QOL Urdu version into routine assessments can enhance the comprehensive understanding of patients' needs and aid in tailoring interventions for optimal rehabilitation. Additionally, as the study suggests, the translation and validation of more questionnaires specific to stroke patients would further enrich the assessment toolkit, contributing to improved patient care and documentation in clinical settings.

Stroke Specific Quality of Life Scale – Urdu (SSQOL-U)

اسکورنگ: ہر آئٹم کو درج ذیل طریقہ سے نمبردیا جائے گا.

1 .مکمل مدد - یہ بلکل نہیں کر سکا - پوری طرح سےراضی
2 **بت مدد** - بہت پریشانی – تھوڑا سا را ضی
3 کچھ مدد - کچھ پریشانی - نہ تو راضی اور نہ ہی انکا ر
4 تھوڑی سی مدد – تھوڑی سی پریشانی – تھوڑا سا بھی راضی نہیں
5 کسی مدد کی ضرورت نہیں - کوئی پریشانی نہیں – بلکل بھی راضی نہیں

توانائی						
1	میں زیادہ تر وقت تھکا ہوا محسوس کرتا تھا/کرتی تھی۔	5	4	3	2	1
2	مجھے دن میں رک رک کر آرام کرنا پڑا	5	4	3	2	1
3	میں جو کرنا چاہتا/چاہتی تھی وہ کرنے کے لیے تھک گیا تھا /تھی۔	5	4	3	2	1
معاشرتی فرائض اور سرگرمیاں						
1	میں اپنے خاندان کے ساتھ کسی بھی تفریح والی سرگرمیوں میں شامل نہیں ہوا/ ہوئی	5	4	3	2	1
2	میں نے محسوس کیا کہ میں اپنے خاندان کے لیے ایک بوجھ ہوں	5	4	3	2	1
3	میری جسمانی حالت نے میری ذاتی زندگی میں مداخلت کی	5	4	3	2	1
زبان						
1	کیا آپ کو بولنے میں دشواری ہوئی؟ مثال کے طور پربات کرتے رک جانا، ہکلانا، یا اپنے الفاظ کو پورا کرنے میں؟	5	4	3	2	1
2	کیا آپ کو ٹیلی فون استعمال کرتے ہوئے بولنے میں کوئی مشکل پیش آ ئی	5	4	3	2	1
3	کیا دوسرے لوگوں کو آپ کی بات کو سمجھنے میں پریشانی ہوئی؟	5	4	3	2	1
4	کیا آپ کو وہ لفظ ڈھونڈنے میں دشواری ہوئی جو آپ کہنا چاہتے تھے؟	5	4	3	2	1
5	کیا آپ کو خود کو دہرانا پڑا تاکہ دوسرے آپ کو سمجھ سکیں؟	5	4	3	2	1
نقل و حرکت						
1	کیا آپ کو چلنے میں تکلیف ہوئی؟ (اگر مریض چل نہیں سکتا تو سوال **نمبر** 4 پر جائیں اور سوالات 2-3 کو 1 کے طور پر اسکور کریں)	5	4	3	2	1
2	کیا آپ نے کسی چیز تک پہنچنے کے لئے جھکتے وقت اپنا توازن کھو دیا؟	5	4	3	2	1
3	کیا آپ کو سیڑھیاں چڑھنے میں پریشانی ہوئی؟	5	4	3	2	1
4	کیا آپ کو چہل قدمی کرتے یا وہیل چیئر استعمال کرتے وقت اپنی پسند سے زیادہ رکنا اور آرام کرنا پڑا؟	5	4	3	2	1
5	کیا آپ کو کھڑے ہونے میں پریشانی ہوئی؟	5	4	3	2	1
6	کیا آپ کو کرسی سے باہر نکلنے میں پریشانی ہوئی؟	5	4	3	2	1
1	میں اپنے مستقبل کے بارے میں مایوس تھا	5	4	3	2	1
2	مجھے دوسرے لوگوں یا سرگرمیوں میں دلچسپی نہیں تھی	5	4	3	2	1
3	میں نے محسوس کیا کہ میں دوسرے لوگوں سے پیچھے رہ گیا	5	4	3	2	1
4	مجھے خود پر بہت کم اعتماد تھا	5	4	3	2	1
5	مجھے کھانے میں دلچسپی نہیں تھی	5	4	3	2	1
شخصیت						
1	میں چڑچڑا تھا	5	4	3	2	1

2	میں دوسروں کے لیےمریض تھا	5	4	3	2	1
3	میری شخصیت بدل گئی ہے	5	4	3	2	1
خود کی دیکھ بھال						
1	کیا آپ کو کھانا تیار کرنے میں مدد کی ضرورت تھی؟	5	4	3	2	1
2	کیا آپ کو کھانے میں مدد کی ضرورت تھی؟ مثلاً سبزی کاٹنےیا کھانا تیار کرتےہوئے؟	5	4	3	2	1
3	کیا آپ کو کپڑے پہننے میں مدد کی ضرورت تھی؟ مثال کے طور پر موزے یا جوتےپہنتے ہوئے، بٹن بند کرتے ہوئے، یا زپ بند کرتے ہوئے؟	5	4	3	2	1
4	کیا آپ کو نہاتے ہوئے کسی کی مدد کی ضرورت تھی	5	4	3	2	1
5	کیا آپ کو ٹوائلٹ استعمال کرنے میں مدد کی ضرورت تھی؟	5	4	3	2	1
سماجی کردار						
1	میں اتنی بار باہر نہیں گیا/گئی جتنا میں چاہتاتھا/چاہتی تھی۔	5	4	3	2	1
2	میں نے اپنے شوق اور تفریح کو اپنی پسند سے کم وقت کے لیے کیا	5	4	3	2	1
3	میں نے اپنے بہت سے دوستوں کو اتنا نہیں دیکھا جتنا میں چاہتا ہوں/چاہتی ہوں	5	4	3	2	1
4	میں نے کم بار جنسی تعلقات قائم کیا	5	4	3	2	1
5	میری جسمانی حالت نے میری سماجی زندگی میں مداخلت کی	5	4	3	2	1
سوچنا						
1	میرے لیے توجہ مرکوز کرنا مشکل تھا	5	4	3	2	1
2	مجھے چیزیں یاد رکھنے میں دشواری تھی	5	4	3	2	1
3	مجھےچیزیں یاد رکھنے کے لیےانہیں لکھنا پڑا	5	4	3	2	1
بازوں اور ہاتھوں کا استعمال						
1	کیا آپ کو لکھنے یا ٹائپ کرنے میں پریشانی ہوئی؟	5	4	3	2	1
2	کیا آپ کو موزے پہننے میں پریشانی ہوئی؟	5	4	3	2	1
3	کیا آپ کو بٹن لگانے میں دشواری ہوئی؟	5	4	3	2	1
4	کیا آپ کو زپ بند کرنے میں پریشانی ہوئی؟	5	4	3	2	1
5	کیا آپ کو جار کھولنے میں پریشانی ہوئی؟	5	4	3	2	1
اولین مقصد						
1	کیا آپ کو ٹیلی ویژن پر اپنی پسند کا کوئی پروگرام اچھی طرح سے دیکھنے میں دشواری ہوئی؟	5	4	3	2	1
2	کیا آپ کو نظر کم ہونے کی وجہ سے چیزوں تک پہنچنے میں دشواری ہوئی؟	5	4	3	2	1
3	کیا آپ کو چیزوں کو ایک طرف دیکھنے میں پریشانی ہوئی؟	5	4	3	2	1
کام/ پیداواری صلاحیت						
1	کیا آپ کو گھر کے ارد گرد روزانہ کام کرنے میں پریشانی ہوئی؟	5	4	3	2	1
2	کیا آپ کو ان کاموں کو ختم کرنے میں پریشانی ہوئی جو آپ نے شروع کیے؟	5	4	3	2	1
3	کیا آپ کو وہ کام کرنے میں پریشانی ہوئی جو آپ کرتے تھے؟	5	4	3	2	1
اسکور					2	1
کل اسکور						

مریض کا آخری نام . . . . . :پیدائش کی تاریخ. . . . . / . . . / . . . . :
مریض کا پہلا نام . . . . . :تاریخ:- . . . . / . . . / . . .

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