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Bladder-related quality of life in people with neurological disorders: reliability and validity of the Turkish version of the King's Health Questionnaire in people with spinal cord injury

Hale Karapolat, Yeşim Akkoç, Sibel Eyigör, Göksel Tanıgör

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ABSTRACT

Objective: To assess the validity and reliability of the Turkish version of the King's Health Questionnaire (KHQ) in patients with spinal cord injury (SCI) and to compare the bladder- related quality of life between patients with SCI and multiple sclerosis (MS).

Material and methods: Thirty-five patients with SCI and 57 patients with multiple sclerosis (MS) were included in the study. For analysis of test-retest reliability, the Turkish version of the KHQ scale was developed using the back translation method, and it was administered on the day of admission and again one week later. The Qualiveen and SF-36 questionnaires were administered to the patients for validity analysis. Moreover, the results of KHQ that had been administered to 35 patients with SCI were compared with those of 57 patients with MS.

Results: Both the internal consistency (Cronbach's alpha coefficient: 0.68-0.93) and the test-retest reliability (intraclass correlation coefficient: 0.69-0.94) of the KHQ in patients with SCI were found to be high. Although a weak correlation between the subscales of the KHQ and SF-36, a moderate correlation between the subscales of KHQ, and the Qualiveen questionnaire ($0.34<r<0.76$, $p<0.05$) were found. The comparison of patients with SCI and patients with MS in terms of KHQ revealed that patients with SCI had significantly higher scores in some of the subscales of KHQ ($p<0.05$). These higher scores represented the worst health state, and the uppermost limit was determined as 100 points.

Conclusion: The KHQ scale is an internally consistent, reliable, and valid scale for people with SCI. In addition, bladder-related quality of life was poorer in patients with SCI than in MS patients.

Keywords: Bladder problems; King's Health Questionnaire; reliability; spinal cord injury; validity.

ORCID IDs of the authors:
H.K. 0000-0002-3091-2081;
Y.A. 0000-0003-0480-499X;
S.E. 0000-0002-9781-2712;
G.T. 0000-0001-6456-7012.

Department of Physical Medicine and Rehabilitation, Ege University School of Medicine, İzmir, Turkey

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Corresponding Author:
Hale Karapolat
E-mail:
halekarapolat@gmail.com

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Introduction

Individuals with spinal cord injuries (SCIs) experience considerable physical and psychological changes, which may affect their quality of life.[1] One of the frequently encountered physical changes among patients with SCI is urinary problems.[2] There are different types of neurogenic bladder dysfunction according to the involvement of different neurological levels in people with SCI. There are three main types of neurogenic bladder dysfunction in SCI: (1) failure to store urine from a hyperreflexic detrusor or a decrease in sphincter resistance, (2) failure to empty urine from an areflexive bladder or an increase in sphincter resistance, and (3) detrusor sphincter dyssinergia. As a result, voiding dysfunction is associated with an increase in the number of complications. The major cause of complications is frequent urinary tract infections (UTIs). UTIs increase the risk of autonomic dysreflexia, spasticity and the need for hospitalization.[3] Neurogenic bladder dysfunction also causes poor quality of life due to embarrassment and reluctance to socialize.[3] This causes greater risk of depression in patients with SCI.[1] Urological problems created by neurogenic bladder may contribute to the development of renal disease, which has been identified as a risk factor for mortality among patients with SCI.[4]

Similar to SCI, urinary tract dysfunction is also common during the course of multiple sclerosis (MS). It has been reported that 50-90% of

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patients with MS have urinary problems.[5] A systematic review reported that the most common urodynamic findings in MS are neurogenic detrusor overactivity and detrusor-sphincter dyssynergia (DSD).[6] In contrast to SCI, DSD is rarely associated with upper urinary deterioration in patients with MS.[1] It has been found that patients with MS have poorly sustained detrusor contractions and a lesser degree of DSD.[7]

Although life expectancy has improved due to advances in medical care[7], urinary disorders have a significantly negative impact on the quality of life in both SCI and MS patients.[8,9] Urinary problems affect the patient on a psychological, occupational, physical and sexual level and become the most socially debilitating and embarrassing aspect of the disease. Therefore, it was important to investigate urinary problems using scales specific to those problems when diagnosing bladder disorders and initiating treatment in neurological diseases.

In a study by Krause and Kjorsvig, quality of life was found to be a good predictor of survival 15 years after an injury, which made it imperative to investigate the quality of life among patients with SCI.[10] It has been reported that bladder problems often cause a lower quality of life in patients with SCI.[11] Urinary disorders affect both patients with SCI and MS but there is evidence to indicate that it is less of a problem for patients with MS.[12] To our knowledge, there are few studies comparing disease-specific quality of life in relation to urinary problems in patients with SCI and MS.[12,13]

It is a necessity to have a reliable questionnaire in the Turkish population because of a high prevalence of SCI and MS. It has been reported that 1.69/100,000 individuals are diagnosed with SCI annually and that the prevalence of MS is 51/100,000 in Turkey.[14,15]

One of the most common quality of life measures for urinary dysfunction is the King's Health Questionnaire (KHQ).[16] One reason for adapting the King's Health Questionnaire in Turkish for SCI patients is its shortness and ease to complete. More importantly, the KHQ is designed to sensitively measure the effects of the symptoms of urinary incontinence on the quality of life, and it can be used to grade the improvement after treatment.[17] In addition, the KHQ is one of the most valid and widely used questionnaires that target the quality of life in patients with urinary incontinence (Crohnbach's alpha 0.76-0.89; ICC 0.80-0.96). It has also been translated into many languages with great success.[18] Australian English, German, American English, Portuguese and Japanese versions exceeded the 0.60 criteria for Cronbach's alpha on all domains in KHQ.[19-21]

The validity and reliability of the KHQ in various languages has been demonstrated, and it is frequently used in determining the effects of both overactive bladder (urge incontinence) and stress incontinence on one's quality of life.[19-21] In addition, the KHQ is often used in determining urinary problems in people with SCI.[22,23] Although the Turkish version of the questionnaire has been shown to be reliable and valid in people with MS,[24] its validity and reliability have not been reported yet for patients with SCI. For this reason, the primary aim of this study was to assess the validity and reliability of the Turkish version of the KHQ among patients with SCI. The secondary aim of our study was to compare the KHQ scores of patients with SCI and MS.

Material and methods

Participants

With the approval of the Ethics Committee of Ege University School of Medicine (dated 24.05.2010, number: 10-4/11), 35 patients with SCI and 57 patients with MS were included in the study. We evaluated all of these patients in the Physical Medicine and Rehabilitation department in our medical school. The inclusion criteria were as follows: the ability to read or speak Turkish; presence of a time interval of at least 6 months between the onset of lower urinary tract symptoms diagnosis of MS or SCI; definite presence of MS[24] (according to Poser criteria) or traumatic SCI. The exclusion criteria for people with SCI and MS included presence of a concomitant neurological illness, unstable urinary disorder, urinary disorders unrelated to MS or SCI, and difficulty answering the questionnaire because of language or cognitive limitations. All patients with SCI and MS completed the KHQ scale. All of the patients were given necessary informations about the study and before the patients completed the consent forms.

Translation: The KHQ was translated into Turkish by three Turkish physical medicine and rehabilitation doctors proficient in English. They met to determine the translation that best reflected the meaning of the English items. English back-translations from Turkish were performed separately by two official linguists who were uninformed regarding the original version (a native English speaker who also speaks Turkish and a teacher of English literature who lived in England for 15 years). Finally, all five gathered to discuss and decide on the translations. The final version was compared with the original English version; both appeared to be equivalent. The questionnaire was applied to a limited number of patients (n=10) as a pilot study, and required no further revisions. In our former study we administered the Turkish version of the KHQ to 37 patients with MS, after learning that the Turkish version of the KHQ was valid and reliable for patients with MS.[24]

Demographic (age, gender) and clinical (neurological level; complete or incomplete injury) data were recorded from patient files and in face-to-face interviews during the first visit.

Thirty-five patients completed the KHQ, the Short Form 36 (SF-36) and the Qualiveen scale during their first examination after we obtained their informed consent.

Intra-rater reliability: Intra-rater reliability was assessed through a comparison of KHQ scores obtained one week apart. A time interval of one week was chosen to reduce the likelihood that participants would remember their initial responses, yet it would be close enough in time to the original assessment to maximize stability of bladder function between assessments.

Construct validity: Construct validity of the KHQ was assessed via comparison of scores for two measures: the SF-36 (a general measure of perceived health and health related quality of life), and the Qualiveen (a measure specific to urinary function). A greater correlation with the Qualiveen relative to the SF-36 was expected and interpreted as an indication that the KHQ measures construct were relevant to urinary function.

Outcome measures

The measures used for patient evaluation were as follows:

The King's Health Questionnaire (KHQ): The KHQ is comprised of 21 questions divided into eight categories including: general health perception (one item), incontinence impact (one item), role limitations (two items), physical limitations (two items), social limitations (two items), personal relationships (three items), emotions (three items), and sleep/energy (two items). Furthermore, it has two independent scales as urinary symptoms and symptom severity. The scale has four options, which are as follows: "not at all", "a little", "moderately" and "a lot"; or "never", "sometimes", "often" and "always". The exceptions were the domain general health perception with five choices ("very good", "good", "fair", "bad" and "very bad") and domain personal relationships ("not applicable", "not at all", "a little", "moderately" and "a lot"). In the KHQ, a minimum possible score of zero was assigned to the best health and a maximum possible score of 100 was assigned to the worst health. The 0-100 scale was used for each item and each subscale separately.[25,26]

MOS of the 36-Item Short-Form Health Survey (SF-36): The SF-36 is one of the most widely used scales for evaluating quality of life. It is a set of general and comprehensible quality-of-life measures containing eight categories. These categories include ten items related to physical functioning, 4 items for role limitations caused by physical health problems, 2 items for bodily pain, 5 for general health perception, 4 for vitality, 2 for social functioning, 3 for role limitations due to emotional problems and 5 for mental health. Each category provides a score ranging from zero (poor health) to 100 (perfect health).[27,28]

Qualiveen scale: The Qualiveen is divided into two major sections: Specific Impact of Urinary Problems on Quality of Life (SIUP) and General Quality of Life (GQoL). The first part, specific to urinary problems, is divided into four categories: inconvenience, restrictions, fears, and impact on daily life, with a total of 30 questions (9, 8, 8, and 5 questions, respectively). Response options are framed as 5-point Likert-type scales with '0' indicating no impact of urinary problems on HRQL and '4' indicating a high adverse impact of urinary difficulties on HRQL. The average for each category is calculated and used to reach the final SIUP score (average of all categories), also ranging from '0' to '4', with '4' being the greatest negative impact. The second section, GQoL, has nine questions, also with a five-category ordinal Likert scale, ranging from very badly to very well, with values ranging from -2 to +2, respectively. The final general QoL value is calculated as the average of the nine questions, which also range from -2 to +2.[29]

Statistical analysis

Data were entered into the Statistical Package for the Social Sciences (SPSS Inc.; Chicago, IL, USA), version 16.0. Descriptive statistics were used to characterize the sample.

Cronbach's alpha coefficient was used to determine the internal consistency of the scales. Test-retest reliability was evaluated by use of intraclass correlation (ICC). For comparison among KHQ, Qualiveen and SF-36 results, the Pearson's correlation coefficient was utilized. Correlations from 0 to 0.25 indicate little or no relationship, those from 0.25 to 0.50 a fair degree of relationship, those from 0.50 to 0.75 a good relationship and those greater than 0.75 indicate a very good to excellent relationship. In addition, the Mann-Whitney U test was used to compare groups. A p-value below 0.05 was considered statistically significant.

Results

The demographic and clinical characteristics of both groups of patients with either SCI or MS are shown in Table 1. As indicated, patients with SCI were significantly younger than patients with MS ($p<0.05$). There were no statistical differences in the other demographic and clinical data between the patient groups ($p>0.05$).

Both internal consistency (Crohnbach's alpha score: 0.68-0. 93) and test-retest reliability (intraclass correlation coefficient: 0.69-0.94) of the KHQ were found to be high (Table 2). Intraclass correlation coefficients for most subscales of KHQ exceeded 0.84 with the exception of the subscales for incontinence impact (intraclass correlation coefficient: 0.69) and personal relations (intraclass correlation coefficient: 0.79) (Table 2).

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Table 1. Demographic and clinical data of MS and SCI patients

	MS patients (n=57)	SCI patients (n=35)
Age (mean±SD, years)	41.8±13.28	34.4±10.92*
Gender (n, male/female)	47/10	9/26
Type of MS (relapsing, remitting n, (%)	39/69.6	
Disease duration (mean±SD, year)	9.3±6.03	3.9±5.89
EDSS score (mean±SD)	3.4±1.88	
EDSS bladder score (mean±SD)	1.8±1.28	
Severity of injury (n)		
Complete		20
Incomplete		15
Neurological level (n)		
Cervical		6
Thoracic		22
Lumbar		7

*p<0.05, EDSS: Expanded Disability Status ScaleMS: multiple sclerosis; SCI: spinal cord injury

Table 2. Test-retest reliability and internal consistency (Crohnbach's alpha) of the Turkish version of the King's Health Questionnaire

KHQ	ICC (95% CI)	Cronbach's alpha
General health perception	0.88 (0.77-0.94)	0.89
Incontinence impact	0.69 (0.37-0.84)	0.68
Role limitations	0.84 (0.68-0.92)	0.84
Physical limitations	0.88 (0.77-0.94)	0.88
Social limitations	0.94 (0.86-0.97)	0.93
Personal relations	0.79 (0.22-0.92)	0.75
Emotional problems	0.86 (0.67-0.92)	0.85
Sleep and energy disturbances	0.90 (0.71-0.95)	0.90
Urinary symptoms	0.91 (0.82-0.95)	0.91
Symptom severity	0.93 (0.86-0.96)	0.93

KHQ: King's Health Questionnaire; ICC: Intraclass correlation coefficient, CI: confidence interval

A weak correlation was found between the subscores of the KHQ scale and the subscores of the SF-36 questionnaire ($p<0.05$) (Table 3), whereas a significant correlation was found between the KHQ sub-scales and the majority of the sub-scores of the Qualiveen scale ($p<0.05$) (Table 4).

The comparison KHQs of patients with SCI and patients with MS revealed that patients with SCI had significantly high scores in some of the subgroups of KHQ (incontinence impact, social limitations, emotional problems, incontinence severity measures, and symptom severity) (Table 5, $p>0.05$).

Discussion

In our study, we concluded that the KHQ scale was an internally consistent and valid questionnaire for patients with SCI. Additionally; it was observed in our study that bladder-related quality of life was poorer in patients with SCI than in patients with MS.

Whilst developing the KHQ, Kelleher et al.[26] have demonstrated internal consistency (Cronbach's alpha) ranging from 0.725 to 0.892 across all categories of this instrument among women with urinary incontinence. Similar to the original study, internal consistency in other studies was observed to be >0.60 in patients with overactive bladder/stress incontinence.[18,19,30] In one study where only people with SCIs were included, the Cronbach's alpha score was found to demonstrate good internal consistency (0.91).[30] In parallel with other studies we found that ICC's for most subscales of KHQ exceeded 0.84 with the exception of the subscales for incontinence impact (0.69) and personal relations (0.79). The reason for that was the quality of life in patients with SCI was disturbed in all aspects including sexual life, family life, etc and therefore the bladder problem was not their only problem affecting their quality of life.

In the original study, we found a weak correlation between KHQ and SF-36 (0.34-0.65) and they were close to the range of correlations found in the present study.[30] The KHQ correlated weakly or strongly (r=0.01-0.73) with the SF-36 when conducted in patients experiencing stress incontinence.[18,19,30] To assess the validity of the KHQ in our study, we investigated the relationship between the KHQ and the general quality of life questionnaire (SF-36), together with the Qualiveen questionnaire, which is a quality of life survey that focuses on problems of the urinary system. Its validity and reliability had been demonstrated in patients with MS.[30] Our study revealed that the correlation between the KHQ and the SF-36 was quite low, whereas the Turkish KHQ correlated fairly strongly with the Qualiveen questionnaire, which is a urinary system-related questionnaire. We believe that this situation indicates that urinary incontinence is a specific problem that might be missed by a general health ques-

Table 3. Content validity: The correlations (r, Pearson's correlation coefficient) between the Turkish version of the King's Health Questionnaire and SF-36 Health Survey

	SF-36 Scale							
KHQ	Physical functioning	Role limitation due to physical problems	Bodily pain	General health	Energy/ Fatigue	Social functioning	Emotional well-being	Mental health
General health perception	-0.26	-0.47*	-0.44*	-0.47*	0.08	-0.48*	-0.12	-0.06
Incontinence impact	0.65	-0.30	-0.25	-0.52*	0.04	-0.39*	-0.29	-0.10
Role limitations	-0.13	-0.38*	-0.42*	-0.34	0.01	-0.21*	-0.29	0.08
Physical limitations	-0.15	-0.40	-0.31	-0.45	-0.51	-0.33	-0.36	-0.22
Social limitations	-0.21	-0.39	-0.28	-0.46	0.04	-0.49*	-0.32	-0.12
Personal relations	-0.23	-0.23	-0.59*	-0.04	0.02	-0.32	0.49*	0.10
Emotional problems	-0.14	-0.20	-0.25	-0.38*	-0.16	-0.24	-0.20	-0.16
Sleep and energy disturbances	0.00	-0.29	-0.25	-0.36	-0.16	-0.32	-0.24	-0.21
Urinary symptoms	-0.17	-0.32	-0.42*	-0.26	-0.19	-0.54*	-0.03	-0.11
Symptom severity	0.09	-0.25	-0.25	-0.190	0.01	-0.35*	-0.09	-0.08

*p<0.05. KHQ: Kings Health Questionnaire; SF-36: Short Form 36

Table 4. Content validity: The correlations (r, Pearson's correlation coefficient) between the Turkish version of the King's Health Questionnaire and the Qualiveen Questionnaire

	The Qualiveen Questionnaire					
KHQ	Inconvenience	Restrictions	Fears	Impact of daily life	SIUP index	General quality of life
General health perception	0.54**	0.57**	0.49**	0.59**	0.64**	-0.64**
Incontinence impact	0.52**	0.38*	0.44*	0.50**	0.572**	-0.57**
Role limitations	0.40*	0.49**	0.46**	0.34*	0.54**	-0.58**
Physical limitations	0.45**	0.42*	0.45*	0.34*	0.51*	-0.60**
Social limitations	0.39*	0.62**	0.40*	0.46**	0.57**	-0.76**
Personal relations	0.45	0.55*	0.57*	0.55*	0.61*	-0.75**
Emotional problems	0.57**	0.39*	0.42*	0.50**	0.61**	-0.65**
Sleep and energy disturbances	0.65**	0.35*	0.61**	0.52**	0.66**	-0.60**
Urinary symptoms	0.39*	0.36*	0.34*	0.31	0.47**	-0.34*
Symptom severity	0.40*	0.15	0.51**	0.34*	0.42*	-0.34*

*p<0.05, **p<0.01. KHQ: Kings Health Questionnaire

tionnaire; because general health questionnaires do not contain bladder-related questions. Although the SF-36 provides a reliable assessment of one's general quality of life, it does not focus on urinary symptoms, and lacks the means to measure them . The KHQ, on the other hand, is a condition-specific quality of life measurement that assesses the unique impact of health-related

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Table 5. Comparison of SCI and MS Patients Based on King's Health Questionnaire

KHQ (Mean±SD)	MS (n=57)	SCI (n=35)
General health perception	48.3±21.1	45.1±23.3
Incontinence impact	43.6±39.3	78.1±26.8*
Role limitations	43.6±39.3	60.5±35.0
Physical limitations	49.2±38.4	63.2±35.01
Social limitations	25.1±27.7	62.4±34.0*
Personal relations	24.3±24.5	46.1±35.6
Emotional problems	37.0±34.0	56.5±32.2*
Sleep and energy disturbances	34.8±35.4	39.5±27.4
Urinary symptoms	35.9±27.9	57.51±28.16*
Symptom severity	12.0±18.0	41.5±27.5*

*p<0.05. KHQ: Kings Health Questionnaire; MS: multiple sclerosis; SCI: spinal cord injury; SD: standard deviation

quality of life associated with urinary problems.[1] In fact, Reese and colleagues found a strong correlation between KHQ and the efficacy measures (urinary incontinence episodes, urgency, and bladder conditions), but they also found a weaker correlation between SF-36 and the efficacy measures.[19] Moreover, some studies demonstrated that KHQ was more responsive to changes from pre to post-treatment than the SF-36.[17,18]

In our clinical practice, patients with MS are not concerned with bladder problems because these patients are more mobile than patients with SCI. Therefore, it is difficult to persuade patients with MS to use bladder emptying methods (such as clean intermittent catheterization). In contrast to this, patients with SCI are more compliant with clean intermittent catherization because they are less mobile than patients with MS. Therefore, our aim was to compare the bladder-related quality of life parametres between patients with MS and SCI. In our study, comparison of patients with SCI to patients with MS in terms of the KHQ showed that the KHQ scores of patients with SCI were worse than those of the patients with MS. The reason for this was that the patients of both groups showed different characteristics. In the SCI group, patients were younger and disability often continued lifelong. On the other hand, the majority of the patients in the MS group encountered differing degrees of disability during relapses, and when these relapses disappeared, the mobility was improved but neurogenic bladder complaints may have continued even though the relapses disappeared. In this respect it was appropriate to assess both of these diseases based on the KHQ, which was found to be a valid and reliable questionnaire to assess quality of life of the patients.

The weakness of our study was that the generalization of these results may have been limited and may not reflect a naturalistic setting. The sample was predominantly male, limiting a generalization to females. Another limitation of our study was that the SCI people were not analyzed according to the urodynamic findings. Information on urodynamic findings would have provided an objective measure of bladder dysfunction severity, and these findings could then have been compared between patients with MS and SCI (to verify that people with SCI had a worse functional state) and could have been correlated with the quality of life scores, with the expectation that worse urodynamic findings would have been detected in these patients. The KHQ is mainly used in female patients with urinary incontinence. In our study most patients were male.

More data from other populations of males with neurological disorders is needed, as a result, we have determined that the Turkish version of the KHQ is a reliable and valid questionnaire for patients with SCIs. We have also concluded that the KHQ can be used in our country to determine the effects of urinary incontinence on the quality of life among SCI patients. It is recommended that future studies will show the sensitivity of the KHQ for bladder rehabilitation programs conducted among patients with SCI.

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Informed Consent: Written informed consent was obtained from patients who participated in this study.

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King's Yaşam KalitesiAnketi

Birinci Bölüm

Genel Sağlık Algılaması

1 - Şimdiki sağlık durumunuzu nasıl tanımlarmısınız?

1 Çok iyi

2 İyi

3 Orta

4 Kötü

5 Çok kötü

2 - İdrar kesesi sorununuzun yaşamınızı ne kadar etkilediğini düşünüyorsunuz?

1 Hiç

2 Çok az

3 Orta derece

4 Çok fazla

İkinci Bölüm

Aşağıda idrar kesesi sorunlarımızın etkileyebileceği bazı günlük işler yer almaktadır. İdrar kesesi sorununuz sizi ne kadar etkilemektedir?

3 - Günlük işlerde kısıtlılık

A. İdrar kesesi sorununuz ev işlerinizi etkiliyor mu? (temizlik, alışveriş gibi)	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
B. İdrar kesesi sorununuz işinizi ya da ev dışındaki normal günlük işlerinizi etkiliyor mu?	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla

4 - Fiziksel/Sosyal kısıtlılık

A. İdrar kesesi sorununuz fiziksel aktivitelerinizi etkiliyor mu? (yürüyüşe çıkma, koşma, spor, vücut geliştirme gibi)	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
B. İdrar kesesi sorununuz seyahat edebilmenizi etkiliyor mu?	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
C. İdrar kesesi sorununuz sosyal yaşamınızı kısıtlıyor mu?	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
D. İdrar kesesi sorununuz arkadaşlarınızı görüp ziyaret edebilmenizi kısıtlıyor mu?	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla

5 - Kişisel ilişkiler

A. İdrar kesesi sorununuz eşinizle ilişkinizi etkiliyor mu?	0 Uygulanamaz	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
B. İdrar kesesi sorununuz cinsel yaşamınızı etkiliyor mu?	0 Uygulanamaz	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
C. İdrar kesesi sorununuz aile yaşantınızı etkiliyor mu?	0 Uygulanamaz	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla

6 - Duygu durumu

A. İdrar kesesi sorununuz nedeniyle kendinizi depresyonda hissediyor musunuz?	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
B. İdrar kesesi sorununuz sizi endişeli ya da sinirli yapıyor mu?	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla
C. İdrar kesesi sorununuz kendinizi kötü hissetmenize neden oluyor mu?	1 Hiç	2 Biraz	3 Orta Derecede	4 Çok Fazla

7 - Uyku / Enerji

A. İdrar kesesi sorununuz uykunuzu etkiliyor mu?	1 Asla	2 Bazen	3 Sıklıkla	4 Her zaman
B. İdrar kesesi sorununuz kendinizi yorgun ve bitkin hissetmenize neden oluyor mu?	1 Asla	2 Bazen	3 Sıklıkla	4 Her zaman

8 - Aşagıdakilerden herhangi birini yapıyor musunuz?		**Yapıyorsanız ne kadar?**		
A. Kuru kalmak için ped kullanmak	1 Asla	2 Bazen	3 Sıklıkla	4 Her zaman
B. Ne kadar sıvı aldığınıza dikkat etmek	1 Asla	2 Bazen	3 Sıklıkla	4 Her zaman
C. Islandığı zaman iç çamaşırlarınızı değiştirme	1 Asla	2 Bazen	3 Sıklıkla	4 Her zaman
D. Kokma konusunda endişe etme	1 Asla	2 Bazen	3 Sıklıkla	4 Her zaman
E. İdrar kesesi sorununuz nedeniyle utanma	1 Asla	2 Bazen	3 Sıklıkla	4 Her zaman

Üçüncü Bölüm

İdrar kesesi sorunlarınızın ne oldugunu ve sizi ne kadar etkilediğini bilmek istiyoruz.

Aşağıdaki listeden şu andaki sorunlarınızı seçiniz. Size uygun olmayanları işaretlemeyiniz.

Aşağıdakiler sizi ne kadar etkiliyor

İdrar yapma sıklığı: Tuvalete çok sık gitme	1 Az	2 Orta derecede	3 Çok
Noktüri: Gece idrar yapmak için kalkma	1 Az	2 Orta derecede	3 Çok
Sıkışma: İdrar yapma isteğinin kuvvetli ve kontrol edilmesi zor oluşu	1 Az	2 Orta derecede	3 Çok
Sıkışarak idrar kaçırma : Kuvvetli idrar yapma isteğiyle birlikte idrar kaçırma	1 Az	2 Orta derecede	3 Çok
Stres inkontinans: Öksürme, koşma gibi fiziksel aktiviteler sırasında idrar kaçırma	1 Az	2 Orta derecede	3 Çok
Enurezis nokturna: Gece altını ıslatma	1 Az	2 Orta derecede	3 Çok
Cinsel ilişki sırasında idrar kaçırma	1 Az	2 Orta derecede	3 Çok
İdrar Yolu İltihabı	1 Az	2 Orta derecede	3 Çok
İdrar kesesi ağrısı	1 Az	2 Orta derecede	3 Çok
İdrar yapmada zorluk	1 Az	2 Orta derecede	3 Çok
Diğerleri (Lütfen tanımlayınız)			