

Impact of Urinary Incontinence on Quality of Life among Residents Living in Turkey

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Purpose: To assess the impact of urinary incontinence on the quality of life in Turkish population.

Materials and Methods: This was a cross-sectional study performed on 530 participants admitted to Sevket Yilmaz Research Hospital in Turkey. Quality of life (QoL) was assessed using Incontinence Impact Questionnaire (IIQ-7). Frequency and severity of urinary incontinence (UI) were diagnosed by answers to the International Consultation on Incontinence Questionnaire Short Form (ICIQ-SF) instrument. The relationship between several demographic data and QoL was examined.

Results: The mean age of the attendees was 55.36 ± 10.62 years (range 40-91). A total of 109 (44%) women and 46 (16%) men suffered involuntary urine leakage. QoL changes for all domains showed significant deteriorations. Frequency and severity of UI were negatively associated with the QoL scores.

Conclusion: Our results have shown that, UI considerably worsens QoL. Challenge with UI should be priority of any project aiming to promote the quality of life.

Keywords: urinary incontinence; quality of life; female; male; cross-sectional studies; Turkey.

INTRODUCTION

The International Continence Society defines urinary incontinence (UI) as ‘involuntary loss of urine that is a social or hygienic problem’.⁽¹⁾ These social and hygienic problems impair the quality of life (QoL) in patients with UI. Assessment of QoL can be achieved by various questionnaires in patients with UI among them Incontinence Impact Questionnaire (IIQ-7) is a well-known and easily applicable instrument to determine impact of UI on QoL.⁽²⁾ It is a self-reported questionnaire filled in by persons and consists of seven items addressing four main domains of life: physical activity, social relations, travel and emotional status. This instrument was validated to Turkish by Cam and colleagues.⁽³⁾ On the other hand, general characteristics of UI can be evaluated by the International Consultation on Incontinence Questionnaire Short Form instrument (ICIQ-SF).⁽⁴⁾ Although urodynamic tests are known to be a gold standard for classification of UI, history taking has been shown to be an alternative to it.⁽⁵⁻⁸⁾

Urinary incontinence is common especially among elderly but it can be experienced at any age. Although it is a quite bothersome situation to the patients some patients suffering from UI do not go to a health care provider because they feel the problem as a normal physiologic situation and some hide the situation as they are ashamed.⁽⁹⁻¹¹⁾ Admission to a hospital with the complaint of UI is shown to be low especially in female gender and they may usually prefer to solve the problem by themselves using some adsorbent pads. Severity of UI, type of the disease and impairment in QoL has been shown to affect help seeking behavior.⁽¹²⁻¹⁴⁾

The aim of the present study was to examine the impact of UI on QoL among Turkish residents and find out an answer to the question “why do they go to a physician in relation to QoL”?

MATERIAL AND METHODS

Study Population

A cross sectional study was conducted in 168 participants with UI who were referred to the outpatient clinics of Urology and Gynecology & Obstetrics departments in Sevket Yilmaz Training and Research Hospital between 1 January 2013 and 31 May 2013. Patients were questioned if they had UI and the first patient of the day during the study period who had the complaint of UI was asked to participate in the study. Demographic data including age distribution, sex,

Table 1. Sociodemographic characteristics of study participants.

Variables	Number
Marital status	
Single	2
Married	166
Education	
Literate	31
Primary	91
Secondary	37
High	9
Occupation	
Housewife	85
Retired	55
Working	27
Unemployed	1
Self-reported economic status	
Low	21
Moderate	133
High	12

education, occupation and marital status were noted. Help seeking attempts of the patients was recorded.

Participants were asked to fill IIQ-7 and ICIQ-SF forms. Quality of life was evaluated by using IIQ-7. Scores obtained from participants were multiplied by 33 to estimate the severity of the changes in QoL. The general characteristics of urinary incontinence were assessed by the data provided from the answers to the ICIQ-SF. It enabled us to determine frequency, quantity and classification of UI. Frequency of UI was categorized in 6 groups ranging from none to always and quantity of UI was examined in 4 groups as none, a little, moderate and a lot. Maneuvers that UI provoked was asked in the questionnaire, and so urge, stress, mix, overactive and total incontinence was differentiated.

Exclusion criteria were patients with a history of a neurologic or psychiatric disease, patients who had been operated for prostatic disease, and patients who were unable to complete the questionnaires.

Ethical approval for this study was obtained from The Ethical Committee of Sevket Yilmaz Training and Research Hospital. Participants were informed about the study objectives and a written informed consent was obtained from each of them.

Statistical Analysis

All statistical analyses were performed with the statistical

Table 2. Impact of urinary incontinence on each life activity.*

Gender	Household	Physical	Entertainment	Travel	Social	Emotional	Feeling
Female	31.4 ± 3.5	35.8 ± 3.5	31.3 ± 3.6	35.8 ± 3.6	39.2 ± 3.7	45.8 ± 3.2	48.0 ± 3.2
Male	28.2 ± 5.2	32.7 ± 4.5	27.6 ± 4.5	31.6 ± 4.9	38.9 ± 5.0	47.6 ± 4.4	44.7 ± 4.8
Total	30.2 ± 2.9	34.7 ± 2.7	30.0 ± 2.8	34.3 ± 2.9	39.1 ± 2.9	46.4 ± 2.6	46.9 ± 2.7

* IIQ-7 scores (mean ±SE) were multiplied by 33 to put scores on a scale of 0 to 100.

package for the social science (SPSS Inc, Chicago, Illinois, USA) version 20.0. For descriptive statistics, means, standard deviations (SD) and frequencies were calculated. We used the student’s t test for the comparison of mean age between groups. Mann Whitney U test was used to compare two groups, Kruskal-Wallis test was used to compare three or more groups for nominal values (i.e.; scores of IIQ-7). P values less than .05 were considered as statistically significant.

RESULTS

A total of 168 participants (107 women and 61 men) suffered involuntary urine leakage. There were 10 patients excluded who couldn’t able to fill the questionnaires. None of the patients refused to participate in the study. The mean age of the attendees was 59.8 ± 11.2 years (range 40-91). Socio-demographic characteristics of the study group are shown in Table 1.

The impact of UI on QoL was mild to moderate in the study

group. QoL scores for each item were similar in both genders (Table 2). Aging was statistically significantly associated with QoL in women (Figure 1).

Totally there were 55 patients with urge incontinence, 41 patients with stress incontinence, 51 patients with mixed incontinence, 12 patients with overactive incontinence and 9 patients with total incontinence. The most common type of UI was urge incontinence (48.3%) in men and stress incontinence (35.5%) in women.

Relationships between general characteristics of UI such as the frequency, severity and type and QoL scores were shown in Table 3 and Figures 2-4. Physical activities and emotional health were impaired in patients who had admitted to a physician with the complaint of UI. Social relationships did not show a significant difference between help seekers and the rest of the study group (Table 4). Duration, frequency and quantity of UI affected the decision to go to a physician. Patients with UI who seek for medical help were older than who do not, [$t = 3.090$, degrees of freedom (df) = 156, $P = .002$].

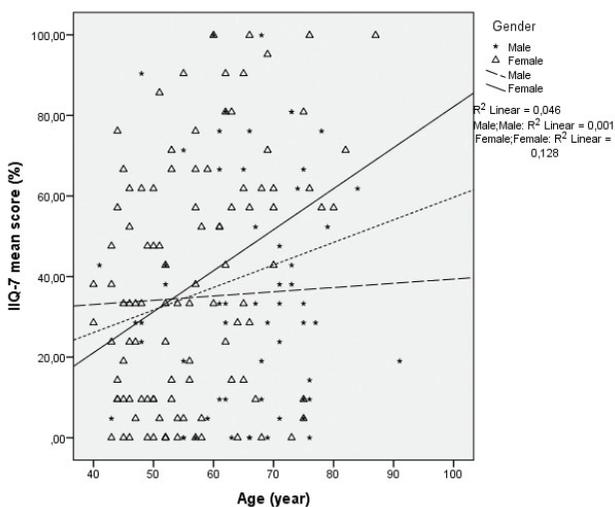


Figure 1. Relationship between Quality of Life and age of the participant.

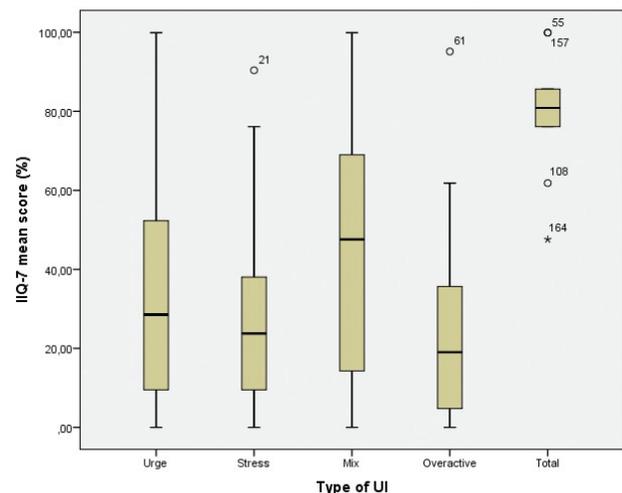


Figure 2. Type of the urinary incontinence and average Quality of Life scores.

Table 3. Relationships between characteristics of urinary incontinence and Quality of Life scores for each domain.

Characteristics	Physical Activity	Travel	Social Relationships	Emotional Health
Frequency of UI	$\chi^2 = 40.088$ df = 5 P = .000	$\chi^2 = 39.232$ df = 5 P = .000	$\chi^2 = 39.115$ df = 5 P = .000	$\chi^2 = 37.312$ df = 5 P = .000
Quantity of UI	$\chi^2 = 40.203$ df = 3 P = .000	$\chi^2 = 41.999$ df = 3 P = .000	$\chi^2 = 41.643$ df = 3 P = .000	$\chi^2 = 33.348$ df = 3 P = .000
Type of UI	$\chi^2 = 18.631$ df = 4 P = .001	$\chi^2 = 14.888$ df = 4 P = .005	$\chi^2 = 14.836$ df = 4 P = .005	$\chi^2 = 21.081$ df = 4 P = .000

Keys: UI, urinary incontinence; df, degrees of freedom.

DISCUSSION

Patients with self-reported UI reported a mild to moderate impairment of QoL, similar to reports from previous studies in Turkey.^(15,16) The most affected domain of QoL was emotional health.

Frequency and quantity of UI affected QoL. Barentsen and colleagues reported that severity rather than type of UI was associated with QoL.⁽¹²⁾ However, some authors claimed that type of incontinence affects QoL.^(13,14) In the present study we only found that QoL was not statistically different between urge, stress or mixed incontinence patients.

The decision of help seeking behavior among Turkish residents was determined by impairment in all domains of QoL other than ‘participation in social activities’. Physical disability and impairment in emotional health direct these patients for a medical help in the study group.

Limitations of this study include the fact that it was not population-based, so results may not reflect the whole Turkish population. And, types of UI were diagnosed by self-reported history; an improved approach would measure UI by urodynamic tests.

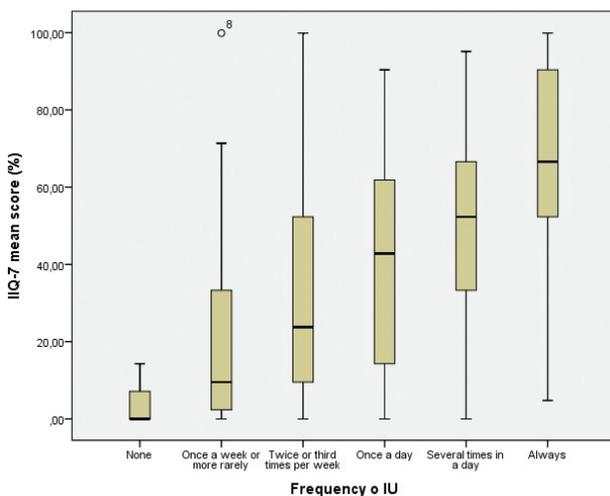


Figure 3. Frequency of the urinary incontinence and average Quality of Life scores.

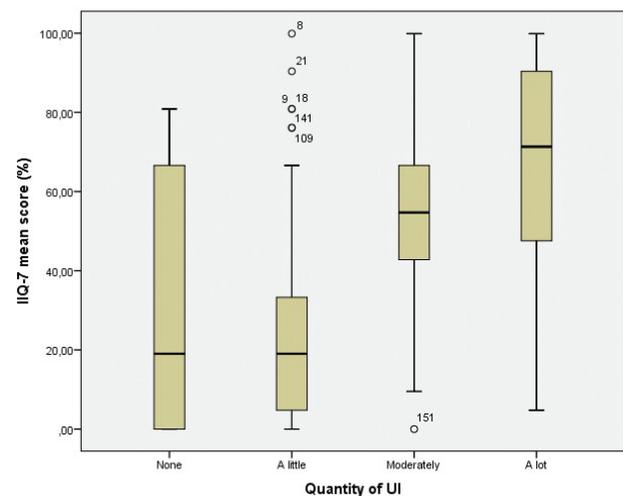


Figure 4. Quantity of the urinary incontinence and average Quality of Life scores.

Table 4. Help seeking behavior and Incontinence Impact Questionnaire Quality of Life scores*

Variables	Household	Physical	Entertainment	Travel	Social	Emotional	Feeling
Help-seeker	41.9 ± 5.1	44.1 ± 4.5	39.8 ± 4.8	41.4 ± 4.6	44.6 ± 4.8	55.2 ± 3.7	54.3 ± 4.1
None help-seeker	19.3 ± 3.2	26.7 ± 3.5	21.0 ± 3.3	27.5 ± 3.8	34.1 ± 3.9	39.1 ± 3.7	40.3 ± 3.8
Statistical analysis**	Z = -3.304	Z = -2.813	Z = -2.867	Z = -2.167	Z = -1.520	Z = -3.043	Z = -2.505
	P = .001	P = .005	P = .004	P = .030	P = .129	P = .002	P = .012

* Average scores (mean ± SE) were multiplied by 33 to put scores on a scale of 0 to 100.

** Mann Whitney U test. The Z score is a test of statistical significance that helps you decide whether or not to reject the null hypothesis.

CONCLUSION

Our results demonstrated that the impact of UI on QoL was mild to moderate among Turkish residents. Emotional health was predominantly impaired in patients who seek for help. Attempts to overcome UI may promote patients' well-being.

CONFLICT OF INTEREST

None declared.

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