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ORIGINAL ARTICLE

Urinary Incontinence Among Married Women in Turkey: Effects on Quality of Sexual Life and Anxiety

BURCU KORKUT[1], NERGIZ SEVINÇ[2], DIDEM ADAHAN[3]
[1]Asst. Prof. MD, Karabuk University, Faculty of Medicine, Department of Family Medicine, Karabuk, Turkey
[2]Assoc Prof. MD, Karabuk University, Faculty of Medicine, Department of Public Health, Karabuk, Turkey
[3]Prof. MD ,Karabuk University, Faculty of Medicine, Department of Family Medicine, Karabuk, Turkey
Corresponding author: Burcu Korkut, Email: burcukorkut@karabuk.edu.tr, Cell: 00905370631627

ABSTRACT

Background: Urinary incontinence (UI) is a broad range of public health issues mainly affecting antenatal and postnatal women. However, research about its impacts on women's psychology and sexuality is inadequate. Aim: The present case-control survey study aimed to compare married women with UI and without UI regarding their quality of sexual life and anxiety levels.

Methods and Material: This study was conducted at XXX Public Health Center, Turkey, between September 15, 2021, and December 15, 2021, and included 660 married women aged between 18 and 65 years (median age of 48 years) who were divided into two groups those with UI and those without UI. A questionnaire consisting of a general information form, the Beck Anxiety Inventory (BAI), and the sexual quality of life – female questionnaire (SQOL-F) was administered to all participants.

Results: The 330 women with UI (median age, 50 years) were significantly older, had higher education levels, higher income levels, higher employment levels, higher rates of partus, abortus, and curettage, higher rates of chronic diseases, and higher rates of regular drug use ($p<0.05$ for all). The mean total SQOL-F scores of women with UI were significantly lower than those of 330 women (median age 47.5 years) without UI (37.8 and 66.7, respectively; $p<0.001$), and total BAI scores of the women with UI were significantly higher than those without UI (27 and 16, respectively; $p<0.001$). The quality of sexual life was negatively correlated with anxiety levels in women without UI (Spearman's rho=-0.163, p=0.003)

Conclusion: Current analyses revealed the negative impacts of UI on women's psychology and sexuality.

Keywords: urinary incontinence; women; quality of life; anxiety

INTRODUCTİON

Urinary incontinence (UI) is a principal diagnosis, commonly described as involuntary urine loss, which affects more than 50% of women older than 18 years old with an increasing pattern year by year [1,2]. This condition is under-reported for various reasons, such as its shaming nature and related sociocultural pressure that stop patients from seeking healthcare about the disease [3,4]. Therefore, it is valuable and essential if healthcare professionals could screen patients for UI during routine hospital visits and provide information about therapeutic options [4]. Besides aging, pregnancy, and childbirth, risk factors change the pelvic region's anatomy and neuronal/muscular structure, explaining the high UI risk of married middle-aged women [5]. Two main types of UI are defined as stress UI, where urine leaks with a physical effort, and urgency UI, where urine leaks with a sudden need to urinate; in addition, if both situations are experienced, it is called mixed UI [6]. UI has severe impacts on patients' quality of life, health, and overall well-being. There is an established relation between UI condition and depressive behaviors, social problems, and declined work productivity of patients [2,7]. In a previous meta-analysis, it was reported that participants with UI had significantly higher anxiety and depression symptoms as compared with participants without UI [8]. In addition, urinary and reproductive systems in women are associated. They have joint anatomical tissues so that urinary issues may result in severe sexual troubles and even dysfunction in women [9]. It is evident that UI is a crucial public health issue; however, research and guidelines on the topic, especially its impacts on women's psychology and sexuality, are inadequate.

The current study aimed to compare women with and without UI regarding their quality of sexual life and anxiety levels and investigate the correlation between the anxiety levels and quality of sexual life in these women.

MATERİALS AND METHODS

The present case-control survey study was conducted in the Cancer Early Diagnosis, Screening, and Education Center (CESCED), affiliated with XXX Public Health Center in XXX, Turkey, between September 15, 2021, and December 15, 2021. In total, 660 married women aged between 18 and 65 years who were admitted to the XXX CESCED were included and divided into two groups those with UI (having UI symptoms but not having any UI treatment) and without UI (healthy control group) by questioning their medical history. Exclusion criteria were: i) being a non-Turkish citizen, ii) using UI drugs, and iii) being pregnant. The study was approved by the Noninterventional Clinical Research Ethics Committee (2021/650, 10/01/2021). The Institutional approval was obtained from the XXX Provincial Health Directorate. All participants included in the study provided written informed consent.

A self-administered questionnaire consisting of 3 parts (a total of 53 questions) as a general information form, the Beck Anxiety Inventory (BAI), and the sexual quality of life – female questionnaire (SQOL-F) was administered to all participants (all in the Turkish language). In Part 1 (14 questions), a general information form including sociodemographic items such as age, educational level, and UI-related questions was applied. In Part 2 (18 questions), the SQOL-F was used to measure the sexual life quality of the participants. This questionnaire was first developed by Symonds et al. [10] to measure the quality of sexual life of women, and the consistency and reliability of its Turkish version were validated and reported by Tugut et al. [11]. This form is scored on a 6-point scale ranging from "completely agree" to "completely disagree" (1= completely agree, 2= mostly agree, 3= partly agree, 4= partially disagree, 5= mostly disagree, and 6= completely disagree) in which a more excellent score indicates a greater level of quality of sexual life. However, items 1, 5, 9, 13, and 18 have inverse propositions and accordingly are inversely scored. In Part 3 (21 questions), the BAI measured the participants' anxiety levels. The BAI is a validated test first developed by Beck et al. [12] to measure the participants' anxiety levels and which higher scores indicate a greater level of anxiety. Participants were asked to rate the degree to which they were bothered by each question. It has a four-point rating scale as 0= not at all, 1= mildly, 2= moderately, and 3= severely (minimum score is 0 and the maximum score is 63).

The questionnaire was administered face-to-face when it was applicable for the participants or online via e-mail when participants did not prefer face-to-face interaction because of the pandemic restrictions.

In the study, the following parameters were evaluated: comparison of women with and without UI for their general characteristics, including sociodemographic features and symptoms and risk factors of UI, anxiety levels, and quality of

sexual life, and correlation between anxiety levels and quality of sexual life.

Statistical Analysis: Statistical analysis was performed using the PASW Statistics for Windows, Version 18.0. (SPSS Inc., Chicago, IL, USA). A p-value under 0.05 was set as statistically significant. The descriptive statistical data were presented as numbers and percentiles for categorical variables and as average, standard deviation, median, minimum-maximum (range), 25th percentile, and 75th percentile for numerical variables. The normal distributions of variables were investigated by visual (histograms and probability graphics) and analytical (Kolmogorov-Smirnov/Shapiro-Wilk) test methods. The Chi-Square test was used for categorical variables when applicable in two-group comparisons. For numerical variables, in two group comparisons, the Mann-Whitney U test was used when data were not normally distributed. Spearman's rho test was used to analyze the correlation between the findings of scales when data were not normally distributed.

RESULTS

The study included a total of 660 women (median age 48 years; range 22-65 years), of whom 330 had UI (median age, 50 years; content, 25-65 years) and 330 did not have UI (median age 47.5 years; range, 22-61 years). The sociodemographic and urinary incontinence-related characteristics of all women included in the study and a comparison between women with and without UI are summarized in [Table 1]. Accordingly, of all participants had, chronic diseases were present in 36.4% (40.9% for women with UI and 31.8% for women without UI, p=0.015), and 36.4% were using drugs regularly (40.9% for women with UI and 31.8% for women without UI, p=0.015). The women with UI were significantly older (median age, 50 years vs. 47.5 years; p=0.022), had higher education levels (p<0.001), higher income levels (p<0.001), higher rates of partus (p<0.001), abortus (p=0.018) and curettage (p<0.001). The proportion of women with urine leakage during intimacy (p<0.001) and the balance of women carrying sanitary pads (p<0.001) were higher in women with UI than in women without UI. Among the women with UI, mixed UI (59.1%) was the dominant UI type, followed by stress UI (22.7%) and urgency UI (18.2%). No significant difference was observed between the groups related to smoking behavior or living area. The comparison of the SQOL-F scores of women with and without UI is summarized in [Table 2]. Accordingly, the results indicated that women with UI's mean total SQOL-F scores were significantly lower than those without UI (37.8 and 66.7, respectively; p<0.001), indicating lower sexual life quality in those with UI.

Table 1: Comparison of sociodemographic and urinary incontinence related characteristics of women with and without urinary incontinence

n, %	Participants (n=660)	UI(+) (n=330)	UI(-) (n=330)	p value
Age, Median (range)	48 (22-65)	50 (25-65)	47.5 (22-61)	0.022**
Education level,				
Literate	60 (9.1)	30 (9.1)	30 (9.1)	<0.001*
Primary School	105 (15.9)	15 (4.5)	90 (27.3)	
Secondary School	180 (27.3)	105 (31.8)	75 (22.7)	
High School	240 (36.4)	120 (36.4)	120 (36.4)	
University	75 (11.4)	60 (18.2)	15 (4.5)	
Partus, Median (range)	2 (0-4)	2 (0-4)	2 (0-3)	<0.001**
Abortus, Median (range)	1 (0-3)	1 (0-3)	1 (0-3)	0.018**
Curettage, Median (range)	1 (0-2)	1 (0-2)	0.5 (0-1)	<0.001**
Employment,				
Employed	210 (31.8)	90 (27.3)	120 (36.4)	0.012*
Unemployed	450 (68.2)	240 (72.7)	210 (63.6)	
Smoking				
Smoker	225 (34.1)	105 (31.8)	120 (36.4)	0.052*
Non-smoker	195 (29.5)	90 (27.3)	105 (31.8)	
Quit smoking	240 (36.4)	135 (40.9)	105 (31.8)	
Household income				
Low	180 (27.3)	90 (27.3)	90 (27.3)	<0.001*
Medium	405 (61.4)	180 (54.5)	225 (68.2)	
High	75 (11.4)	60 (18.2)	15 (4.5)	
Living area				
Province	150 (22.7)	75 (22.7)	75 (22.7)	1.000*
District	390 (59.1)	195 (59.1)	195 (59.1)	
Rural	120 (18.2)	60 (18.2)	60 (18.2)	
Chronic disease				
Yes	240 (36.4)	135 (40.9)	105 (31.8)	0.015*
No	420 (63.6)	195 (59.1)	225 (68.2)	
Regular medication use				
Yes	240 (36.4)	135 (40.9)	105 (31.8)	0.015*
No	420 (63.6)	195 (59.1)	225 (68.2)	
UI type				
Stress UI	75 (22.7)[a]	75 (22.7)	-	-
Urgency UI	60 (18.2)[a]	60 (18.2)	-	
Mixed UI	195 (59.1)[a]	195 (59.1)	-	
Urine leakage during sexual activity				
Yes	240 (36.4)	195 (59.1)	45 (13.6)	<0.001*
No	420 (63.6)	135 (40.9)	285 (86.4)	
Urine leakage frequency				
Rarely	45 (13.6)[a]	45 (13.6)	-	-
Sometimes	135 (40.9)[a]	135 (40.9)	-	
Often	150 (45.5)[a]	150 (45.5)	-	
Carrying sanitary pads				
Never	165 (25)	0 (0)	165 (50)	<0.001*
Rarely	180 (27.3)	15 (4.5)	165 (50)	
Sometimes	75 (11.4)	75 (22.7)	0 (0)	
Often	165 (25)	165 (50)	0 (0)	
Always	75 (11.4)	75 (22.7)	0 (0)	

Table 2: Comparison of the sexual quality of life – female questionnaire (SQOL-F) scores of women with and without urinary incontinence

	Participants (n=660)	UI(+) (n=330)	UI(-) (n=330)	p
Total Score, Mean (range)	55 (21.1-95.6)	37.8 (21.1-95.6)	66.7 (31.1-87.8)	<0.001**
1. When I think about my sexual life, it is an enjoyable part of my life overall, n (%)				
Completely agree	45 (6.8)	45 (13.6)	0 (0)	-
Mostly agree	240 (36.4)	165 (50)	75 (22.7)	
Partly agree	120 (18.2)	60 (18.2)	60 (18.2)	
Partly disagree	180 (27.3)	30 (9.1)	150 (45.5)	
Mostly disagree	60 (9.1)	15 (4.5)	45 (13.6)	
Completely disagree	15 (2.3)	15 (4.5)	0 (0)	
2. When I think about my sexual life, I feel frustrated, n (%)				
Completely agree	30 (4.5)	30 (9.1)	0 (0)	-
Mostly agree	150 (22.7)	120 (36.4)	30 (9.1)	
Partly agree	135 (20.5)	105 (31.8)	30 (9.1)	
Partly disagree	150 (22.7)	30 (9.1)	120 (36.4)	
Mostly disagree	180 (27.3)	30 (9.1)	150 (45.5)	
Completely disagree	15 (2.3)	15 (4.5)	0 (0)	
3. When I think about my sexual life, I feel depressed, n (%)				
Completely agree	45 (6.8)	45 (13.6)	0 (0)	-
Mostly agree	75 (11.4)	60 (18.2)	15 (4.5)	
Partly agree	180 (27.3)	150 (45.5)	30 (9.1)	
Partly disagree	90 (13.6)	30 (9.1)	60 (18.2)	
Mostly disagree	240 (36.4)	30 (9.1)	210 (63.6)	
Completely disagree	30 (4.5)	15 (4.5)	15 (4.5)	
4. When I think about my sexual life, I feel like less of a woman, n (%)				
Mostly agree	90 (13.6)	90 (27.3)	0 (0)	-
Partly agree	195 (29.5)	165 (50)	30 (9.1)	
Partly disagree	45 (6.8)	15 (4.5)	30 (9.1)	
Mostly disagree	210 (31.8)	45 (13.6)	165 (50)	
Completely disagree	120 (18.2)	15 (4.5)	105 (31.8)	
5. When I think about my sexual life, I feel good about myself. , n (%)				
Completely agree	60 (9.1)	60 (18.2)	0 (0)	-
Mostly agree	180 (27.3)	135 (40.9)	45 (13.6)	
Partly agree	120 (18.2)	90 (27.3)	30 (9.1)	
Partly disagree	150 (22.7)	15 (4.5)	135 (40.9)	
Mostly disagree	150 (22.7)	30 (9.1)	120 (36.4)	
6. I have lost confidence in myself as a sexual partner, n (%)				
Mostly agree	75 (11.4)	60 (18.2)	15 (4.5)	-
Partly agree	285 (43.2)	195 (59.1)	90 (27.3)	
Partly disagree	60 (9.1)	15 (4.5)	45 (13.6)	
Mostly disagree	135 (20.5)	30 (9.1)	105 (31.8)	
Completely disagree	105 (15.9)	30 (9.1)	75 (22.7)	
7. When I think about my sexual life, I feel anxious, n (%)				
Mostly agree	150 (22.7)	120 (36.4)	30 (9.1)	-
Partly agree	210 (31.8)	150 (45.5)	60 (18.2)	

Partly disagree	75 (11.4)	15 (4.5)	60 (18.2)	
Mostly disagree	180 (27.3)	30 (9.1)	150 (45.5)	
Completely disagree	45 (6.8)	15 (4.5)	30 (9.1)	
8. When I think about my sexual life, I feel angry, n (%)				
Mostly agree	105 (15.9)	90 (27.3)	15 (4.5)	-
Partly agree	150 (22.7)	135 (40.9)	15 (4.5)	
Partly disagree	45 (6.8)	15 (4.5)	30 (9.1)	
Mostly disagree	270 (40.9)	75 (22.7)	195 (59.1)	
Completely disagree	90 (13.6)	15 (4.5)	75 (22.7)	
9. When I think about my sexual life, I feel close to my partner, n (%)				
Mostly agree	135 (20.5)	90 (27.3)	45 (13.6)	-
Partly agree	90 (13.6)	90 (27.3)	0 (0)	
Partly disagree	300 (45.5)	105 (31.8)	195 (59.1)	
Mostly disagree	120 (18.2)	30 (9.1)	90 (27.3)	
Completely disagree	15 (2.3)	15 (4.5)	0 (0)	
10. I worry about the future of my sexual life, n (%)				
Mostly agree	135 (20.5)	105 (31.8)	30 (9.1)	-
Partly agree	210 (31.8)	150 (45.5)	60 (18.2)	
Partly disagree	60 (9.1)	30 (9.1)	30 (9.1)	
Mostly disagree	195 (29.5)	15 (4.5)	180 (54.5)	
Completely disagree	60 (9.1)	30 (9.1)	30 (9.1)	
11. I have lost pleasure in sexual activity, n (%)				
Completely agree	45 (6.8)	45 (13.6)	0 (0)	-
Mostly agree	195 (29.5)	150 (45.5)	45 (13.6)	
Partly agree	180 (27.3)	75 (22.7)	105 (31.8)	
Partly disagree	45 (6.8)	15 (4.5)	30 (9.1)	
Mostly disagree	150 (22.7)	30 (9.1)	120 (36.4)	
Completely disagree	45 (6.8)	15 (4.5)	30 (9.1)	
12. When I think about my sexual life, I am embarrassed, n (%)				
Completely agree	15 (2.3)	15 (4.5)	0 (0)	-
Mostly agree	120 (18.2)	90 (27.3)	30 (9.1)	
Partly agree	225 (34.1)	150 (45.5)	75 (22.7)	
Partly disagree	90 (13.6)	15 (4.5)	75 (22.7)	
Mostly disagree	195 (29.5)	45 (13.6)	150 (45.5)	
Completely disagree	15 (2.3)	15 (4.5)	0 (0)	
13. When I think about my sexual life, I feel that I can talk to my partner about sexual matters, n (%)				
Completely agree	15 (2.3)	15 (4.5)	0 (0)	-
Mostly agree	105 (15.9)	75 (22.7)	30 (9.1)	
Partly agree	75 (11.4)	45 (13.6)	30 (9.1)	
Partly disagree	285 (43.2)	105 (31.8)	180 (54.5)	
Mostly disagree	165 (25)	75 (22.7)	90 (27.3)	
Completely disagree	15 (2.3)	15 (4.5)	0 (0)	
14. I try to avoid sexual activity, n (%)				
Completely agree	30 (4.5)	30 (9.1)	0 (0)	-
Mostly agree	240 (36.4)	210 (63.6)	30 (9.1)	
Partly agree	120 (18.2)	45 (13.6)	75 (22.7)	
Partly disagree	105 (15.9)	15 (4.5)	90 (27.3)	
Mostly disagree	150 (22.7)	15 (4.5)	135 (40.9)	
Completely disagree	15 (2.3)	15 (4.5)	0 (0)	
15. When I think about my sexual life, I feel guilty, n (%)				
Mostly agree	90 (13.6)	75 (22.7)	15 (4.5)	-
Partly agree	135 (20.5)	120 (36.4)	15 (4.5)	
Partly disagree	90 (13.6)	45 (13.6)	45 (13.6)	
Mostly disagree	225 (34.1)	60 (18.2)	165 (50)	
Completely disagree	120 (18.2)	30 (9.1)	90 (27.3)	
16. When I think about my sexual life, I worry that my partner feels hurt or rejected, n (%)				
Mostly agree	60 (9.1)	60 (18.2)	0 (0)	-
Partly agree	195 (29.5)	150 (45.5)	45 (13.6)	
Partly disagree	30 (4.5)	15 (4.5)	15 (4.5)	
Mostly disagree	255 (38.6)	90 (27.3)	165 (50)	
Completely disagree	120 (18.2)	15 (4.5)	105 (31.8)	
17. When I think about my sexual life, I feel like I have lost something, n (%)				
Mostly agree	75 (11.4)	60 (18.2)	15 (4.5)	-
Partly agree	210 (31.8)	120 (36.4)	90 (27.3)	
Partly disagree	45 (6.8)	45 (13.6)	0 (0)	
Mostly disagree	270 (40.9)	90 (27.3)	180 (54.5)	
Completely disagree	60 (9.1)	15 (4.5)	45 (13.6)	
18. When I think about my sexual life, I am satisfied with the frequency of sexual activity, n (%)				
Completely agree	105 (15.9)	105 (31.8)	0 (0)	-
Mostly agree	165 (25)	135 (40.9)	30 (9.1)	
Partly agree	105 (15.9)	60 (18.2)	45 (13.6)	
Partly disagree	195 (29.5)	15 (4.5)	180 (54.5)	
Mostly disagree	75 (11.4)	15 (4.5)	60 (18.2)	
Completely disagree	15 (2.3)	0 (0)	15 (4.5)	

Table 3: Comparison of Beck Anxiety Inventory (BAI) scores of women with and without urinary incontinence Spearman's rho=0.090, p=0.103).

n, (%)	Participants (n=660)	UI(+) (n=660)	UI(-) (n=660)	p
Total Score, Median (range)	20.5 (11-48)	27 (16-48)	16 (11-25)	<0.001**
1. Numbness or tingling				
Not at all	195 (29.5)	45 (13.6)	150 (45.5)	-
Mildly	360 (54.5)	195 (59.1)	165 (50)	
Moderately	90 (13.6)	75 (22.7)	15 (4.5)	
Severely	15 (2.3)	15 (4.5)	0 (0)	
2. Feeling hot				
Not at all	105 (15.9)	30 (9.1)	75 (22.7)	-
Mildly	420 (63.6)	180 (54.5)	240 (72.7)	
Moderately	90 (13.6)	75 (22.7)	15 (4.5)	
Severely	45 (6.8)	45 (13.6)	0 (0)	
3. Wobbliness in legs				
Not at all	195 (29.5)	60 (18.2)	135 (40.9)	-
Mildly	420 (63.6)	225 (68.2)	195 (59.1)	
Moderately	45 (6.8)	45 (13.6)	0 (0)	
4. Unable to relax				
Not at all	135 (20.5)	45 (13.6)	90 (27.3)	-
Mildly	390 (59.1)	165 (50)	225 (68.2)	
Moderately	120 (18.2)	105 (31.8)	15 (4.5)	
Severely	15 (2.3)	15 (4.5)	0 (0)	
5. Fear of worst happening				
Mildly	285 (43.2)	75 (22.7)	210 (63.6)	-
Moderately	360 (54.5)	240 (72.7)	120 (36.4)	
Severely	15 (2.3)	15 (4.5)	0 (0)	
6. Dizzy or lightheaded				
Not at all	360 (54.5)	105 (31.8)	255 (77.3)	-
Mildly	240 (36.4)	165 (50)	75 (22.7)	
Moderately	45 (6.8)	45 (13.6)	0 (0)	
Severely	15 (2.3)	15 (4.5)	0 (0)	
7. Heart pounding				
Not at all	105 (15.9)	45 (13.6)	60 (18.2)	-
Mildly	465 (70.5)	195 (59.1)	270 (81.8)	
Moderately	90 (13.6)	90 (27.3)	0 (0)	
8. Unsteady				
Not at all	15 (2.3)	15 (4.5)	0 (0)	-
Mildly	315 (47.7)	105 (31.8)	210 (63.6)	
Moderately	315 (47.7)	195 (59.1)	120 (36.4)	
Severely	15 (2.3)	15 (4.5)	0 (0)	
9. Terrified or afraid				
Not at all	30 (4.5)	0 (0)	30 (9.1)	-
Mildly	330 (50)	105 (31.8)	225 (68.2)	
Moderately	300 (45.5)	225 (68.2)	75 (22.7)	
10. Nervous				
Mildly	285 (43.2)	135 (40.9)	150 (45.5)	-
Moderately	360 (54.5)	180 (54.5)	180 (54.5)	
Severely	15 (2.3)	15 (4.5)	0 (0)	
11. Feeling of choking				
Not at all	300 (45.5)	75 (22.7)	225 (68.2)	-
Mildly	285 (43.2)	210 (63.6)	75 (22.7)	
Moderately	75 (11.4)	45 (13.6)	30 (9.1)	
12. Hands trembling				
Not at all	315 (47.7)	45 (13.6)	270 (81.8)	-
Mildly	315 (47.7)	255 (77.3)	60 (18.2)	
Moderately	30 (4.5)	30 (9.1)	0 (0)	
13. Shaky				
Not at all	315 (47.7)	45 (13.6)	270 (81.8)	-
Mildly	330 (50)	270 (81.8)	60 (18.2)	
Moderately	15 (2.3)	15 (4.5)	0 (0)	
14. Fear of losing control				
Not at all	15 (2.3)	0 (0)	15 (4.5)	-
Mildly	300 (45.5)	120 (36.4)	180 (54.5)	
Moderately	315 (47.7)	195 (59.1)	120 (36.4)	
Severely	30 (4.5)	15 (4.5)	15 (4.5)	
15. Difficulty in breathing				
Not at all	300 (45.5)	45 (13.6)	255 (77.3)	-
Mildly	285 (43.2)	240 (72.7)	45 (13.6)	
Moderately	75 (11.4)	45 (13.6)	30 (9.1)	
16. Fear of dying				
Mildly	105 (15.9)	15 (4.5)	90 (27.3)	-
Moderately	525 (79.5)	285 (86.4)	240 (72.7)	
Severely	30 (4.5)	30 (9.1)	0 (0)	
17. Scared				
Mildly	120 (18.2)	0 (0)	120 (36.4)	-
Moderately	435 (65.9)	270 (81.8)	165 (50)	
Severely	105 (15.9)	60 (18.2)	45 (13.6)	
18. Indigestion				

Not at all	450 (68.2)	195 (59.1)	255 (77.3)	-
Mildly	195 (29.5)	120 (36.4)	75 (22.7)	
Moderately	15 (2.3)	15 (4.5)	0 (0)	
19. Faint				
Not at all	375 (56.8)	120 (36.4)	255 (77.3)	-
Mildly	240 (36.4)	165 (50)	75 (22.7)	
Moderately	45 (6.8)	45 (13.6)	0 (0)	
20. Face flushed				
Not at all	240 (36.4)	90 (27.3)	150 (45.5)	-
Mildly	360 (54.5)	180 (54.5)	180 (54.5)	
Moderately	45 (6.8)	45 (13.6)	0 (0)	
Severely	15 (2.3)	15 (4.5)	0 (0)	
21. Sweat (not related to hot)				
Not at all	30 (4.5)	0 (0)	30 (9.1)	-
Mildly	285 (43.2)	75 (22.7)	210 (63.6)	
Moderately	330 (50)	240 (72.7)	90 (27.3)	
Severely	15 (2.3)	15 (4.5)	0 (0)	

The comparison of the BAI scores between the women with UI and without UI is summarized in [Table 3], and the results showed that the total BAI scores of the women with UI were significantly higher than those without UI (27 and 16, respectively; p<0.001), which implies that were experiencing indicating higher anxiety levels in women with UI.

Evaluation of the correlation analysis between the quality of sexual life (SQOL-F scores) and anxiety levels (BAI scores) of the women with UI and without UI revealed that a negative, weak correlation between the SQOL-F and BAI scores in the women without UI was significant (Spearman's rho=-0.163, p=0.003). On the other hand, there was no significant correlation between these parameters in the women with UI (Spearman's rho=0.090, p=0.103).

DİSCUSSİON

Urinary incontinence has devastating adverse effects on women's daily quality of life, including personal, social, and psychological aspects, making it a clinically significant issue. On the other hand, it is primarily an under-reported condition due to its stigma and sensitive nature. The current findings supported the negative impacts of UI on women's psychology and sexuality.

The present survey results revealed that women with UI were older, had higher unemployment levels, higher education and income levels, and higher rates of partus, abortus, and curettthanwith those without UI. In addition, the proportion of women with chronic diseases and using drugs regularly were higher than those with UI. One of the well-established UI risk factors involves increased age [13,14] resulting from functional destructions and coexisting clinical illnesses [15]. In this study, increasing age is a risk factor for UI in women. Another known risk factor is concurrent chronic diseases, supported by the current study results in women in Turkey. In a previous study on the US population, Daugirdad et al. [16] surveyed 7226 women aged >50 years to investigate the association of UI with chronic health problems. Their results proved a significant association between heart failure and UI prevalence. The other major risk factors of UI examined in the present survey study were pregnancy and childbirth. The rates of partus, abortus, and curettage rates were significantly higher in women with UI than those without. It has been estimated that about one-third of women have UI after childbirth [17] due to the stretched and weakened muscles of the pelvic floor [18]. Therefore, it is essential to monitor women giving birth who report UI before and during pregnancy to prevent the continuation or worsening of UI condition [19]. The distribution of UI types among patients mainly changes from one study to another. In the present study, the frequencies of women with mixed, stress, and urgency UI were 59.1%, 22.7%, and 18.2%, respectively. On the other hand, in another population study from Turkey, mixed, stress, and urgency UI frequencies were 33.1%, 31%, and 47.4%, respectively [20]. A population-based review study reported the corresponding rates of mixed, stress, and urgency type UI as 32%, 50%, and 14% [21]. As it can be noticed, there are huge variations between studies regarding UI type ratios. For instance, urgency UI has the highest percentage in one study and the lowest in another. One study pointed out the age factor and found that stress UI was higher among younger women, but that urgency UI (in Germany) and mixed UI (in Denmark) were higher among older women [22]. A similar categoric trend was shown in the US population [23], implying that age differences may be associated with age. These deviations can also result from alterations in clinical definitions, population (ethnicity), survey and measurement type, response rate, the efficacy of health care, and other factors [24]. Sociodemographic items of the current survey revealed that women with UI were higher educated and had higher incomes than the group without UI. This result may be related to the higher comfort of the more educated and wealthier group in discussing that kind of sensitive issue. Data on income and education level parameters were not consistently reported in individual studies, limiting comparison [25].

Regarding the relationship between UI and sexuality, as expected and consistent with the previous studies, participants with UI displayed lower sexual life quality scores. Additionally, participants with UI reported higher urine leakage ratios during sexual activity than those without UI. Su et al. [26] addressed the association between UI and female sexual function in a non-clinical population. They discovered that UI symptoms, regardless of the UI types and other risk factors, were significantly associated with sexual dysfunction. There are not only physical and anatomical associations with UI and sexual activity [4-6, 9] but also nonignorable adverse psychological effects, such as embarrassment, odor related sense of humiliation, fear of UI during sexual activity, anxiety related to intimacy, and loss of self-confidence and self-image [9,27]. Thus, UI generally leads to reduced intimacy and sexual desire, which significantly affects couples' relationships and even may have more severe consequences such as marriage breakdown and divorce [27]. From this perspective, the psychological effects of UI and the participants' anxiety levels with and without UI were compared. Again, consistently with the previous research, participants with UI showed significantly higher anxiety levels than those without UI. In cross-sectional studies with the Iranian population [28], and a multi-center study (USA, France, Germany, and the UK) [29], it was reported that women with any type of UI showed a significantly reduced degree of mental health.

Furthermore, women with UI are three times more likely to have major depression [2, 27]. In a meta-analysis on anxiety and UI association, which reviewed articles including more than 30.000 participants in total, results are the same regardless of age factor [8]. There was no significant correlation between the SQOL-F and BAI scores in the women with UI in the current study. On the contrary, women without UI presented a weak correlation between these parameters. This may be related to the limitations of the topics, namely, the participant's difficulty in discussing UI and sexuality [30], especially in terms of eastern cultural and religious norms. In addition, the current study has limitations such as sampling from only one center, limited participant number, inhomogeneity of the comparison groups according to sociodemographic features, and determining UI condition according to the participants' responses (by questioning their medical history) without using any diagnostic tool.

CONCLUSİONS

Although almost half of the women are experiencing or will experience UI, it is an under-reported and under-investigated clinical problem primarily due to the association with a taboo issue and embarrassment condition. However, it has severe adverse consequences on the quality of life of women, especially in terms of psychological condition and sexuality. Further research and enlightenment on the issue may substantially affect women's wellbeing and overall public health. Furthermore, international societies of urology and gynecology should focus on anxiety and sexual impairment, two vital topics associated with women's UI.

REFERENCES

1. Burton CS, Gonzalez G, Choi E, Bresee C , Nuckols TK, Eilber KS , et al. The Impact of Provider Sex and Experience on the Quality of Care Provided for Women with Urinary Incontinence. Am. J. Med. 2022;135(4):524-530.
2. Trowbridge ER , Hoover EF. Evaluation and Treatment of Urinary Incontinence in Women. Gastroenterol Clin. North Am. 2022;51(1):157-175.
3. Bardsley A. An overview of urinary incontinence. Br. J. Nurs. 2016;25(18):14-21.
4. Goforth J , Langaker M. Urinary Incontinence in Women. N. C. Med. J. 2016;77(6):423-425.
5. Rajavuori A , Repo JP , Häkkinen A , Palonen P , Multanen J , Aukee P. Maternal risk factors of urinary incontinence during pregnancy and postpartum: A prospective cohort study. Eur. J. Obstet. Gynecol. Reprod. Biol. X. 2021;13:100138.
6. Aoki Y , Brown HW, Brubaker L, Cornu JN , Daly JO, Cartwright R. Urinary incontinence in women. Nat. Rev. Dis Primers. 2017;3:17097.
7. Rogo-Gupta LJ , Yang L , Stefanick ML , Hedlin H, Wallece R, Woods N, et al.Low-fat dietary pattern reduces urinary incontinence in postmenopausal women: post hoc analysis of the Women's Health Initiative Diet Modification Trial. AJOG Global Reports. 2022;2(1): 100044.
8. Cheng S , Lin D , Hu T , Cao L , Liao H , Mou X , et al. Association of urinary incontinence and de-pression or anxiety: a meta-analysis. J. Int. Med. Res. 2020;48(6): 300060520931348.
9. Mota RL, Female urinary incontinence and sexuality. Int. Braz. J. Urol. 2017;43:20-28.
10. Symonds T, Boolell M, Quirk F. Development of a questionnaire on sexual quality of life in women. J. Sex Marital Ther. 2005;31(5):385-397.
11. Tugut N, Gölbaşı ZA. Validity and reliability study of Turkish version of the Sexual Quality of Life Questionnaire-Female. Cumhuriyet Medical Journal 2010;32:172-180.
12. Beck AT, Epstein N, Brown G, Steer RA. An inventory for measuring clinical anxiety: psychometric properties. J. Consult. Clin. Psychol. 1988;56(6):893-897.
13. Milsom I, Coyne KS, Nicholson S, Kvasz M, Chen C ,Wein AJ. Global prevalence and economic burden of urgency urinary incontinence: a systematic review. Eur. Urol. 2014;65(1): 79-95.
14. Çiftçi Ö, Günay O. Prevalence of urinary incontinence and affecting factors among the women attending gynecology clinics of Kayseri Education and Research Hospital. Erciyes Medical Journal. 2011;33(4):301-308.
15. Sirls LT,Rashid T. Geriatric urinary incontinence. Geriatr. Nephrol. Urol. 1999;9(2):87-99.
16. Daugirdas SP, Markossian T, Mueller ER, Durazo-Arvizu R, Cao G, Kramer H. Urinary incontinence and chronic con-ditions in the US population age 50 years and older. Int. Urogynecol. J. 2020;31(5):1013-1020.
17. Woodley SJ, Boyle R, Cody JN, Mørkved S, Hay-Smith JC. Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women. Cochrane Database Syst. Rev. 2017;12(12): CD007471.
18. Institute JB. The Joanna Briggs Institute best practice information sheet: the effectiveness of pelvic floor muscle exercises on urinary incontinence in women following childbirth. Nurs. Health Sci. 2011;13(3):378-381.
19. Patel K ,Long JB , Boyd SS, Kjerulff KH. Natural history of urinary incontinence from first childbirth to 30-months post-partum. Arch. Gynecol. Obstet. 2021;304(3):713-724.
20. Şensoy N , Doğan N , Özek B , Karaaslan L. Urinary incontinence in women: prevalence rates, risk factors and impact on quality of life. Pak. J. Med. Sci. 2013;29(3):818-822.
21. Minassian VA, Drutz HP ,Al-Badr A. Urinary incontinence as a worldwide problem. Int. J. Gynaecol. Obstet. 2003;82(3):327-338.
22. Pedersen LS, Lose G, Høybye MT, Elsner S, Waldmann A, Rudnicki M. Prevalence of urinary incontinence among women and analysis of potential risk factors in Germany and Denmark. Acta Obstet. Gynecol. Scand. 2017;96(8): 939-948.
23. Abufaraj M, Xu T,Cao C,Siyam A, Isleem U, Massad A, et al. Prevalence and trends in urinary incontinence among women in the United States, 2005-2018. Am. J. Obstet. Gynecol. 2021;225(2):166.e1-166.e12.
24. Hunskaar S, Arnold EP, Burgio K, Diokno AC, Herzog AR, Mallett VT. Epidemiology and natural history of urinary incontinence. Int. Urogynecol. J Pelvic Floor Dysfunct. 2000;11(5):301-319.
25. Siddiqui NY, Levin PJ, Phadtare A ,Pietrobon R , Ammarell N. Perceptions about female urinary incontinence: a sys-tematic review. Int. Urogynecol. J. 2014;25(7):863-971.
26. Su C, Sun BY, Jiann B. Association of urinary incontinence and sexual function in women. Int. J. Urol. 2015;22(1):109-113.
27. Sinclair AJ , Ramsey IN. The psychosocial impact of urinary incontinence in women. The Obstetrician & Gynaecologist 2011;13:143-148.
28. Mallah F, Montazeri A, Ghanbari Z, Tavoli A , Haghollahi F ,Aziminekoo E. Effect of Urinary Incontinence on Quality of Life among Iranian Women. J. Family Reprod. Health 2014;8(1):13-19.
29. Abrams P , Smith AP, Cotterill, N. The impact of urinary incontinence on health-related quality of life (HRQoL) in a re-al-world population of women aged 45-60 years: results from a survey in France, Germany, the UK and the USA. BJU Int. 2015;115(1):143-152.
30. Irwin GM. Urinary Incontinence. Prim. Care. 2019;46(2):233-242.