ACADEMIC JOURNAL OF HEALTH

ORIGINAL ARTICLE

The Impact of Urinary Incontinence on Female Sexual Function: A Tertiary Center Experience

ABSTRACT

Objectives: Urinary incontinence (UI) is a prevalent health issue affecting women's quality of life and sexual function. This study investigates the impact of different types of UI on sexual function using the Pelvic Organ Prolapse/Urinary Incontinence Sexual Function Questionnaire short form (PISQ-12).

Methods: A total of 123 sexually active women with stress, urge, or mixed-type UI, who presented to the Urogynecology clinic of Etlik City Hospital between May 2023 and September 2023, were included in the study. Patients with a history of pelvic floor surgery or pelvic organ prolapse were excluded. The PISQ-12 short form, validated in Turkish, was administered. Statistical analysis was performed using SPSS 21 software.

Results: The study population had a mean age of 48.2±10.5 years and a mean BMI of 30.0±4.6 kg/m^2. The average duration of UI was 5.4±3.8 years. Mixed-type UI was the most common (46.3%), followed by stress UI (36.5%) and urge UI (17.2%). The mean total PISQ-12 score was 27.1±6.7, with the lowest scores observed in the mixed-type UI group (25.1). Coital incontinence was reported in 46% of the patients. Statistically significant differences were observed in coital incontinence and coital incontinence anxiety between groups with poor and better sexual function ($p<0.05$). However, there were no statistically significant differences in PISQ-12 scores between the types of UI. Additionally, no significant difference in sexual dysfunction was found between premenopausal and postmenopausal groups.

Conclusion: Urinary incontinence significantly impacts women's physical, psychosocial, and sexual health, necessitating thorough evaluation and treatment to improve quality of life and sexual function. Addressing UI and its associated sexual dysfunctions in clinical practice is crucial, despite the challenges in diagnosing these conditions.

Keywords: Urinary incontinence, sexual dysfunction, PISQ-12 short form

Urinary incontinence (UI) is a common health problem affecting women's quality of life, with studies reporting a prevalence ranging from 11.4% to 73% (1). UI, which affects women's social life, also impacts the quality of sexual life. It is known that urinary incontinence causes female sexual dysfunction, with studies reporting frequencies ranging from 32% to 68% (2–5). UI during sexual intercourse negatively affects a woman's self-confidence and may lead to avoidance of sexual activity. This situation can be seen in 11%–45% of women with urinary incontinence. Women who are exposed to humiliating behavior by their partners may reduce the frequency of sexual intercourse and experience difficulties with arousal and orgasm. This condition, which affects many stages of sexual intercourse, deteriorates a woman's quality of life and affects her relationship with her partner, and therefore family structure.

In the practical diagnosis of sexual dysfunctions, inquiry forms hold significant importance, as patients cannot be adequately evaluated through routine physical examination and anatomical assessment alone. Through these forms, sexual problems can be defined with more objective criteria in the diagnosis and treatment process. The Pelvic Organ Prolapse/Urinary Incontinence Sexual Function Questionnaire short form (PISQ-12) is a validated scale specifically developed to assess sexual function in patients with urinary incontinence and/or pelvic organ prolapse (6).

This study aims to investigate the effects of urinary incontinence on sexual function in women using the Pelvic Organ Prolapse/Urinary Incontinence Sexual Function Questionnaire short form (PISQ-12).

Tuğba Kolomuç Gayretli
Selver Özge Şefik
Ramazan Erda Pay
Gülin Feykan Yeğin
Hüseyin Levent Keskin

Department of Obstetrics and Gynecology, Ankara Etlik City Hospital, Ankara, Türkiye

Corresponding author:
Tuğba Kolomuç Gayretli
✉ tugbakolomuc@hotmail.com

Received: July 31, 2024
Revisioned: August 28, 2024
Accepted: August 31, 2024

Cite this article as: Kolomuç Gayretli T, Şefik SÖ, Pay RE, Yeğin GF, Keskin HL. The impact of urinary incontinence on female sexual function: A tertiary center experience. Acad J Health 2024;2(1):16-19.

DOI: 10.14744/ajh.2024.68077

MATERIALS AND METHODS

A total of 123 sexually active women who presented to the Urogynecology clinic of Etlik City Hospital between May 2023 and September 2023 with complaints of urinary incontinence, diagnosed with stress, urge, or mixed type, were included in the study. Women with a history of pelvic floor surgery or pelvic organ prolapse were excluded. Written informed consent was obtained from all participants. After recording the demographic data and obstetric histories of the patients, basic clinical evaluation including anamnesis, physical and pelvic examination, complete urine analysis, urine culture, provocative stress test, and urodynamic tests was performed. The PISQ-12 short form, proposed by Roger et al. (7) and validated in Turkish by C. Cam et al. (8), was administered to patients. The PISQ scale consists of 12 questions, and the responses are rated on a 5-point Likert scale ranging from "never" to "always". The total score is obtained by summing the responses to the questions, with a maximum score of 48. A low total score on the PISQ-12 indicates poor sexual function. A score of <17 has been determined as the cutoff value for poor sexual function in previous studies (7,8). Sexual function was assessed in three subscales: emotional behaviors, physical behaviors, and relationship with the partner, with four questions in each section. The emotional behavior area evaluates sexual desire, frequency of sexual activity, and orgasm capacity; the physical behavior area evaluates the effects of urinary incontinence on sexual intercourse; and the relationship with the partner area evaluates the partner's reactions during intercourse and how the patient perceives them. The maximum score for each section is 16.

Statistical evaluation was performed using SPSS 21 software, and analyses were conducted using this program. Mean ± standard deviation values of the data were calculated. Student's t-test and Mann-Whitney U test were used for quantitative data. The Chi-Square Test was used to compare the proportions of patients between the two PISQ-12 score groups. The Kruskal-Wallis test was performed to compare mean PISQ-12 scores across the different groups. Statistical significance was considered as $p<0.05$.

Ethical approval for the study was obtained from the Ankara Etlik City Hospital Local Ethics Committee on April 24, 2024, with decision number AEŞH-BADEK-2024-299.

RESULTS

The study included 123 patients with a mean age of 48.2±10.5 years (range 24–68) and a mean BMI of 30.0±4.6 kg/m². The average duration of urinary incontinence was 5.4±3.8 years. Of the cases, 37.4% were postmenopausal, and 62.6% were in the reproductive period. The mean total score obtained from the PISQ-12 scale was 27.1±6.7, with the highest score belonging to the emotional behaviors subscale. According to the threshold value for poor sexual function (PISQ-12 score <17), patients were divided into two groups. There was no statistically significant difference between the two groups in terms of age, BMI, gravida, parity, and mode of delivery. When the clinical complaints of the patients were examined, the sensations of vaginal prolapse, vaginal widening, and aerovaginal complaints were similar. Coital incontinence was observed in 60.6% of patients (20 out of 33) in the group with poor sexual function and in 40% of patients (36 out of 90) in the other group. Coital incontinence anxiety was observed in 69.6% of patients (23 out of 33) in the first group and in 50% of patients (45 out of 90) in the second group. A statistically significant difference was observed in the frequency of coital incontinence and coital incontinence anxiety between the two groups ($p<0.05$) (Table 1). It was found that 46% (n=56) of the cases experienced urinary incontinence during sexual intercourse (PISQ-12; Question 6).

Table 1. Demographic and Clinical Data of Patients According to PISQ-12 Scores

	PISQ-12<17 n=33 (26,8%)	PISQ-12>17 n=90 (73,2%)	p
Age	48.55±11.66	48.08±9.87	0.82*
BMI	30.72±5.11	29.89±4.97	0.40*
Gravida	3 (0–9)	3 (0–9)	0.69**
Parity	3 (0–9)	3 (0–9)	0.95**
Vaginal Delivery	3 (0–9)	3 (0–7)	0.85**
Cesarean Delivery	0 (0-2)	0 (0-2)	0.53**
Sensation of Vaginal Prolapse			0.35***
No	22	69	
Yes	11	21	
Sexual Aversion			**0.001*** **
No	6	49	
Yes	27	41	
Dyspareunia			**0.002*** **
No	14	67	
Yes	19	23	
Sensation of Vaginal Widening			0.270***
No	17	59	
Yes	16	31	
Aerovagina			0.295***
No	21	66	
Yes	12	24	
Coital Incontinence	20	36	**0.000*** **
Coital Incontinence Anxiety	23	45	**0.000*** **

*T-test **Mann Whitney-U test ***Chi-Square Test

Table 2. Patient Distribution and PISQ-12 Scores by Urinary Incontinence Type

Urinary Incontinence type	Number of Patients	Mean PISQ-12 Score	Percentage with Poor Sexual Function	
Stress UI	45	28.0±5,0	13.3%	
Urge UI	21	26.3±4,5	19.0%	p>0.05*
Mixed UI	57	25.1±6,2	42.1%	

*Kruskal-Wallis test

Among the patients, 36.5% were diagnosed with stress incontinence, 17.2% with urge incontinence, and 46.3% with mixed-type urinary incontinence. Patients with mixed-type urinary incontinence had a lower mean PISQ-12 score (25.1) compared to those with stress UI (28.0) and urge UI (26.3), indicating poorer sexual function, but the differences were not statistically significant (Table 2).

When the relationship between sexual dysfunction and menopause status was examined, the mean PISQ-12 score in the postmenopausal patient group (16.17) was lower than in the premenopausal patient group (17.47), but no statistically significant difference was found (p>0.05).

DISCUSSION

Sexual dysfunctions are defined as disorders that develop due to a disruption in one of the physiological processes in the desire, arousal, and orgasm phases of the sexual response cycle in humans (9). Women's sexual health encompasses physical, emotional, mental, and social well-being. Urinary incontinence plays a significant role in the etiology of sexual dysfunctions. Approximately half of sexually active women with urinary incontinence experience sexual dysfunction, and 25% of these women leak urine during sexual intercourse. Urodynamic studies have also identified concurrent bladder contractions and urethral relaxation during orgasm. In our study, the rate of coital incontinence was found to be 46%.

The feeling of embarrassment and loss of self-confidence brought on by the fear of leaking urine during intercourse can cause a woman to avoid sexual activity and reduce her sense of satisfaction during the relationship. A study examining the sexual behaviors of patients who leak urine during intercourse showed that 50% of the patients concealed their urine leakage from their partners, 19% emptied their bladders before intercourse, 19% shortened intercourse due to fear of urine leakage, 6% engaged in anal sex due to urine leakage, and 28% avoided sexual intercourse (10). Similarly, a study by Nilsson et al. (11) involving women aged 18–74 with urge urinary incontinence found that one-third of the women leaked urine during intercourse, and half reported that their sexual life was somewhat or greatly impaired due to fear of urine leakage during intercourse. In our study, the lowest score on the PISQ-12 scale was found in the physical behavior area. Consistent with this study, 36% of the patients in our study avoided sexual intercourse. A study investigating the effects of urinary incontinence on sexual function showed that stress urinary incontinence had the most significant impact on sexual life (12). In our study, although the patients with mixed-type UI had lower scores on the PISQ-12 scale, there was no statistically significant difference compared to other types of UI. Another study also showed that the effects of different types of urinary incontinence on sexual function are similar (13).

A study examining the urogenital complaints of postmenopausal women showed that women with urinary incontinence had more problems with arousal, difficulty achieving orgasm, and a lack of satisfaction (14). However, a study by Lukacz et al. (15) suggested that urinary incontinence is not a factor affecting female sexuality, but rather, advancing age and menopause significantly impact female sexuality. In our study, we also showed that sexual dysfunction was more prevalent with advancing age and menopause. However, no statistically significant difference was found between the premenopausal and postmenopausal patient groups.

In a study by Brown et al. (16) involving 2763 women, urinary incontinence was found in one-third of premenopausal women and nearly half of postmenopausal women. Considering the prevalence of urinary incontinence in women, this condition, which significantly affects quality of life and sexual life, should be meticulously addressed.

CONCLUSION

Urinary incontinence is a general health problem closely related to a woman's physical, psychosocial, and sexual health. This condition, which can reduce women's self-confidence, cause social withdrawal, feelings of embarrassment, and even depression, negatively affects quality of life and causes problems in the sexual lives of couples. It is important for sexuality, an inseparable part of human life, to be healthy, making both partners happy and satisfied.

Despite being a widespread and multifaceted problem, sexual dysfunctions often go undiagnosed in daily urogynecology practice due to the lack of time and the patients' reluctance to discuss their sexual lives. Urinary incontinence, known to cause sexual dysfunctions, should be addressed as a serious health problem, regardless of the stage of life, and treated with appropriate methods due to its negative effects on sexual life.

Ethics Committee Approval: This study was conducted with the permission of the Ankara Etlik City Hospital Local Ethics Committee (decision no: AEŞH-BADEK-2024-299, date: 24.04.2024).

Informed Consent: Written informed consent was obtained from the patients who agreed to take part in the study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – T.K.G., S.Ö.Ş., G.F.Y.; Design – T.K.G., S.Ö.Ş., R.E.P.; Supervision – T.K.G., G.F.Y.; Resource - T.K.G., S.Ö.Ş., R.E.P.; Materials – T.K.G., S.Ö.Ş.; Data collection &/or processing – T.K.G., S.Ö.Ş., R.E.P.; Analysis and/or interpretation - R.E.P., G.F.Y., H.L.K.; Literature Review – T.K.G., S.Ö.Ş.; Writing – T.K.G., G.F.Y.; Critical review – G.F.Y., H.L.K.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

REFERENCES

1. Stenberg Å, Heimer G, Ulmsten U, Cnattingius S. Prevalence of genito-urinary and other climacteric symptoms in 61-year-old women. Maturitas 1996;24(1-2):31-6. [CrossRef]
2. Maaita M, Bhaumik J, Davies AE. Sexual function after using tension-free vaginal tape for the surgical treatment of genuine stress incontinence. BJU Int 2002;90(6):540-3. [CrossRef]
3. Temml C, Haidinger G, Schmidbauer J, Schatzl G, Madersbacher S. Urinary incontinence in both sexes: Prevalence rates and impact on quality of life and sexual life. Neurourol Urodyn 2000;19(3):259-71. [CrossRef]
4. Shah SM, Bukkapatnam R, Rodríguez LV. Impact of vaginal surgery for stress urinary incontinence on female sexual function: Is the use of polypropylene mesh detrimental? Urology 2005;65(2):270-4. [CrossRef]
5. Salonia A, Zanni G, Nappi RE, Briganti A, Dehò F, Fabbri F, et al. Sexual dysfunction is common in women with lower urinary tract symptoms and urinary incontinence: Results of a cross-sectional study. Eur Urol 2004;45(5):642-8. [CrossRef]
6. Espuña Pons M. Sexual health in women with pelvic floor disorders: Measuring the sexual activity and function with questionnaires - a summary. Int Urogynecol J 2009;20(S1):65-71. [CrossRef]
7. Rogers RG, Coates KW, Kammerer-Doak D, Khalsa S, Qualls C. A short form of the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-12). Int Urogynecol J Pelvic Floor Dysfunct 2003;14(3):164-8. [CrossRef]
8. Cam C, Sancak P, Karahan N, Sancak A, Celik C, Karateke A. Validation of the short form of the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-12) in a Turkish population. Eur J Obstet Gynecol Reprod Biol 2009;146(1):104-7. [CrossRef]
9. Tsai TF, Yeh CH, Hwang TIS. Female sexual dysfunction: Physiology, epidemiology, classification, evaluation and treatment. Urol Sci 2011;22(1):7-13. [CrossRef]
10. Kizilkaya Beji N, Yalcın O, Ayyildiz EH, Kayir A. Effect of urinary leakage on sexual function during sexual ıntercourse. Urol Int 2005;74(3):250-5. [CrossRef]
11. Nilsson M, Lalos O, Lindkvist H, Lalos A. How do urinary incontinence and urgency affect women's sexual life? Urinary incontinence, urgency and sexual life. Acta Obstet Gynecol Scand 2011;90(6):621-8. [CrossRef]
12. Clark A, Romm J. Effect of urinary incontinence on sexual activity in women. J Reprod Med 1993;38(9):679-83.
13. Aslan G, Köseoğlu H, Sadik Ö, Gimen S, Cihan A, Esen A. Sexual function in women with urinary incontinence. Int J Impot Res 2005;17(3):248-51. [CrossRef]
14. Oskay UY, Beji NK, Yalcin O. A study on urogenital complaints of postmenopausal women aged 50 and over. Acta Obstet Gynecol Scand 2005;84(1):72-8. [CrossRef]
15. Lukacz ES, Whitcomb EL, Lawrence JM, Nager CW, Contreras R, Luber KM. Are sexual activity and satisfaction affected by pelvic floor disorders? Analysis of a community-based survey. Am J Obstet Gynecol 2007;197(1):88.e1-88.e6. [CrossRef]
16. Brown J. Prevalence of urinary incontinence and associated risk factors in postmenopausal women. Obstet Gynecol 1999;94(1):66-70. [CrossRef]