



Determination of Types and Frequency of Urinary Incontinence in Women

Kadınlarda Üriner İnkontinans Çeşitleri ve Sıklığının Belirlenmesi

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ABSTRACT

Objective: Finding out the forms, frequency, and contributing variables of female urine incontinence was the goal of this study.

Methods: The research is cross-sectional and descriptive. In this study, 408 women who were at least 18 years old participated. The International Consultation on Incontinence Questionnaire Short Form and the Women's Personal Data Identification Form were used to gather study data.

Results: It was discovered in this study that 37.3% of women had urine incontinence. The quality of life was found to be minimally impacted by urinary incontinence (2.81±4.02). Urinary incontinence frequency was found to be significantly correlated with age, body mass index, number of births, chronic conditions, normal delivery, menopause status, and these factors (p<0.05).

Conclusion: Women who experience urinary incontinence, particularly as they age, suffer from a disorder that impairs their quality of life. To help women live better lives, it is critical that medical professionals-especially nurses-screen for urine incontinence in high-risk populations, refer patients to a facility for treatment when needed, and offer education in tandem.

Keywords: Prevalence, risk factors, urinary incontinence

ÖZ

Amaç: Bu çalışmada kadınlarda üriner inkontinans çeşitleri, sıklığı ve ilişkili faktörlerin belirlenmesi amaçlanmıştır.

Yöntemler: Bu çalışma tanımlayıcı ve kesitsel bir çalışmadır. Bu çalışma 18 yaş ve üzeri 408 kadın ile yapılmıştır. Çalışmanın verileri kadınların kişisel verilerini tanılama formu ve Uluslararası İnkontinans Sorgulama Anketi Kısa Formu ile toplanmıştır.

Bulgular: Bu çalışmada kadınlarda üriner inkontinans sıklığı %37,3 bulunmuştur. Üriner inkontinansın yaşam kalitesini düşük düzeyde (2,81±4,02) etkilediği görülmüştür. İdrar kaçırma sıklığının yaş, vücut kitle indeksi, doğum sayısı, kronik durumlar, normal doğum, menopoz durumu ve bu faktörlerle anlamlı düzeyde ilişkili olduğu belirlendi (p<0,05).

Sonuç: Özellikle yaşlandıkça idrar kaçırma sorunu yaşayan kadınlar, yaşam kalitelerini bozan bu sorundan muzdariptirler. Sağlık profesyonellerinin özellikle de hemşirelerin riskli gruplara yönelik üriner inkontinans taramasının yapılması ve gerektiğinde sağlık kuruluşuna tedavisi için yönlendirmesi, eş zamanlı olarak eğitimlerinin verilmesi kadınların yaşam kalitesini yükseltmesi açısından önemlidir.

Anahtar Sözcükler: Prevalans, risk faktörleri, üriner inkontinans

Introduction

One prevalent and significant issue that has an impact on women's health is urinary incontinence (UI). The inability to regulate urinate unintentionally is often referred to as UI. UI can have negative physical, psychological and social effects, significantly

reducing quality of life. This problem, which is especially common among women, can occur at different stages of life and may be associated with factors such as lifestyle, hormonal changes, and childbirth (1,2). According to studies, the prevalence of UI ranges from 9% to 75%, with women experiencing the highest rates.

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It is stated that this prevalence increases especially with age, obesity, menopause, and number of births (3-5).

Nursing is a multifaceted health field that aims to support the physical and psychosocial health of the individual. Women's health is an important issue that nurses are particularly interested in and work on. In this context, a common problem such as UI constitutes an important part of women's health (6-8). The goal of internal medicine nursing is to maximize patients' medical care by addressing a broad variety of health issues. Internal medicine nurses should be aware of and responsive to conditions like obesity and advanced age, which are major contributors to UI and are also risk factors for the condition. Therefore, UI is an issue that internal medicine nurses encounter and play an active role in its management. By supporting patients and their families in managing their incontinence, nurses can enhance the quality of life for individuals. Because they view this illness, which has a detrimental impact on quality of life, as a natural process that begins with birth and aging, women do not apply to medical facilities. Research on this topic has been done, according to an analysis of the literature. To increase awareness, additional research is necessary. The purpose of this study was to identify the different forms, frequency, and associated factors of female UI. The study's findings will add to the body of knowledge by directing medical professionals in the diagnosis, treatment, and education of patients with risk factors for UI.

Methods

Study design: The research was cross-sectional and descriptive.

Sample of the research: Turkish women who were over the age of eighteen made up the study's sample. Informed about the research and their rights, 408 willing participants in the study gave their informed consent prior to the study's commencement. Participants' rights were all upheld, and the concepts of voluntariness and confidentiality were taken into consideration.

Data collection method: Online surveys were used to gather data between July 18, 2023, and September 1, 2023.

Data collection: A questionnaire outlining each person's personal traits and the International Consultation on Incontinence Questionnaire Short questionnaire (ICIQ-SF) were used to gather the data.

Personal characteristics identification form of individuals

A 13-item form was used to gather the data, which were gathered through a review of the literature. The questions covered the following topics: age, height, weight, height and age of marriage, education level, presence of chronic diseases (diabetes, hypertension, coronary artery disease), smoking, number of births, type of birth, whether the birth was an intervention, status of miscarriages, whether the baby weighed more than 4 kg, and menopausal status.

International Consultation on Incontinence Questionnaire Short Form

Avery et al. (9) created the ICIQ-SF to evaluate user interface and its effects on quality of life. The number of the dimensions of the scale are four. Three dimensions are scored in the first place. Based on the individual's complaints, the type of UI is determined by the answers to the fourth dimension, which is not assessed. The assessment allows for the individual evaluation of each sub-dimension's score, and the influence of UI on quality of life is determined by adding the scores of the three dimensions. Instead of adding the dimension scores one at a time, scoring generally tends to produce a single score. The measure offers scores ranging from 0 to 21, where a low score denotes minimal impact of UI on quality of life and a high score denotes significant impact. Çetinel et al. (10) translated the ICIQ-SF into Turkish in 2004 and carried out a validity and reliability analysis. The scale's Cronbach's alpha coefficient was determined to be 0.71. The Cronbach's alpha coefficient in this investigation was found to be 0.75.

Statistical Analysis

The statistical analysis in the study was conducted using the IBM SPSS statistics 26.0 application. Along with descriptive statistical techniques, the study data were evaluated (mean, standard deviation, frequency, percent). The Mann-Whitney U test was used to examine data that did not exhibit a normal distribution, and the Student's t-test was used to evaluate data that did. The correlation between the variables was assessed using Pearson and Spearman correlation analyses. The associations between the variables were assessed using the chi-squared test. An analysis of binary logistic regression was done to look at the impact of confounding variables. The significance level of $p < 0.05$ and the 95% confidence range were used to analyze the results.

Ethical aspect of the study: Permission to begin the study was acquired from Bezmi Alem Vakıf University Ethics Committee, with decision number 2023/133 and date of June 7, 2023. Those who consented to take part in the study provided informed consent.

Results

Table 1 displays the individual's personal characteristics as well as the types and frequency of UI. The women's average age was 41.12 ± 12.34 years, with 69.9% having graduated from college and 70.1% being married. UI was found in 37.3% of the female participants. UI was shown to have a negligible impact on quality of life (2.81 ± 4.02) (Table 1).

Table 2 illustrates the association between individual traits and incontinence. Age, number of births, BMI, marital status, educational attainment, status of chronic diseases (diabetes, hypertension, coronary artery disease), menopausal status, miscarriage, normal delivery, status of intervention delivery, and

Table 1. Personal characteristics of individuals, frequency and types of urinary incontinence (n=408)

	n	%
Age (mean)	41.12±12.34	
Body mass index (mean)	25.85±5.25	
Number of births (mean)	1.53±1.32	
Educational status		
Primary school graduate	39	9.6
Secondary school graduate	24	5.9
High school graduate	60	14.7
Graduate student	285	69.9
Marital status		
Married	286	70.1
Single	122	29.9
Those with diabetes	34	8.3
Those with coronary artery disease	6	1.5
Those with hypertension	54	13.2
Smokers	129	31.6
Those with menopause	106	26
Normal births	150	36.8
Those who gave birth by caesarean section	168	41.2
Miscarriage	68	16.7
Those who had an intervention birth	78	19.1
Those who gave birth to a baby weighing over 4 kilos	39	9.6
How often do you leak urine?		
Never ever	256	62.7
Like once a week or less	83	20.3
Two or three times a week	21	5.1
Like once a day	9	2.2
Like several times a day	31	7.6
Always	8	2.0
How much urine do you usually leak?		
Nothing	256	62.7
Small amount	131	32.1
Moderate quantity	21	5.1
Overall, how much does urinary incontinence affect your everyday life? (mean)	1.14±2.24	
When do you leak urine?		
Urine never leaks	256	62.7
It'll be gone before you can make it to the bathroom	103	25.2
Leaks when you cough or sneeze	120	29.4
It leaks while you sleep	9	2.2
Leaks when you are physically active or exercising	25	6.1
It leaks when you finish peeing and get dressed	11	2.7
Leaks for no apparent reason	13	3.2
It always leaks	8	2.0
Mean score for the impact of UI on quality of life	2.81±4.02	
Descriptive statistical methods (mean, standard deviation, frequency, percent), UI: Urinary incontinence		

urine incontinence were found to be significantly correlated ($p<0.05$).

Table 3 shows a significant positive connection ($p<0.005$) between the persons' UI status and age, BMI, number of births, and intervention delivery. The study employed binary logistic regression analysis to examine the impact of age, BMI, number of births, and intervention delivery on the prevalence of urine incontinence in the participants. Age, BMI, and the number of births were revealed to be significant ($p<0.05$) in the binary logistic regression analysis, even in the absence of additional confounding variables. Binary logistic regression analysis revealed that while there was a positive association between the delivery of interventions and UI, it was not statistically significant ($p>0.05$).

Discussion

The study found that the prevalence of UI among women was 37.3%, and its influence on quality of life was minimal (2.81±4.02) (Table 1). Our finding is comparable with the literature. According to reports in the literature, women are more likely to have UI at ages 25 to 45, with the prevalence rising with age (3). The individuals' mean age was 41.12±12.34, and a significant correlation ($p<0.05$) was found between age and UI. The frequency of UI increased with increasing age. We could say that the reason why UI affected the quality of life at a low level was that the participants were middle-aged women.

The mean BMI of the participants was 25.85±5.25 and the mean number of births was 1.53±1.32. The frequency of UI and BMI was shown to be significantly correlated with the number of births ($p<0.05$). Furthermore, age, BMI, and the number of births-risk factors for UI-were revealed to be significant ($p<0.05$) in the binary logistic regression analysis, separate from other confounding variables. In a systematic review by Abufaraj et al., (11) age, obesity, comorbidities, smoking, postmenopausal hormone therapy were found to increase UI. Wikander et al. (12) found that the number of births was associated with UI. The study's findings are consistent with those reported in the literature. But this study revealed no evidence of a significant link between smoking and UI ($p>0.05$). Given that the literature revealed a different conclusion, it was believed that more thorough research should be done on this topic.

In addition to the risk variables discovered in earlier studies, the menopause was found to increase the incidence of UI in the study by Xue et al. (13). In this study, it was also found that menopause increased UI. We can explain this significance in two ways. First, menopause is a process seen in women at advanced ages. It is found that the frequency of UI increased with age. Although menopause does not directly affect the frequency of UI, UI can increase in an age-dependent manner. Secondly, Abufaraj et al. (11) found that menopausal hormone therapy increased UI. In this study, it can be said that menopausal hormone treatment may increase UI.

In this study, it was found that intervention, normal delivery and miscarriage increased UI. Studies in the literature also indicate that normal delivery increases UI (12). Binary logistic

Table 2. The relationship between personal characteristics of individuals and urinary incontinence (n=408)

	Patients with urinary incontinence (n)	Patients without urinary incontinence (n)	p-value
Age (mean)	45.64±12.41	38.43±11.50	0.001
BMI (mean)	27.47±5.77	24.89±4.66	0.001
Number of births (mean)	2.05±1.37	1.22±1.18	0.001
Marital status			
Married	130	156	0.001
Single	22	100	
Educational status			
Primary school graduate	22	17	0.02
Secondary school graduate	12	12	
High school graduate	21	39	
Graduate student	97	188	
People with diabetes	22	12	0.001
People without diabetes	130	244	
Those with hypertension	32	22	0.001
Those without hypertension	120	234	
Those with coronary artery disease	5	1	0.02
Those without coronary artery disease	147	255	
Those with menopause	55	51	0.001
Those without menopause	97	205	
Smokers	52	77	0.22
Non-smokers	100	179	
Miscarriage	39	29	0.001
No miscarriage	113	227	
Normal births	85	65	0.001
Those who do not give birth normally	67	191	
Those who gave birth by caesarean section	63	105	0.5
Those who did not give birth by caesarean section	89	151	
Those who had an intervention birth	38	40	0.01
Those who do not have an intervention birth	114	216	
Those who gave birth to a baby weighing over 4 kilos	20	19	0.08
Those who did not give birth to a baby weighing over 4 kilos	132	237	

Student's t-test, Mann-Whitney U test, The chi-squared test, BMI: Body mass index

Table 3. Correlation between urinary incontinence status and age, BMI, number of births and intervention births

		How often do you leak urine?	How much urine do you usually leak?	Overall, how much does urinary incontinence affect your everyday life?	Mean score for the impact of UI on quality of life
Age	r	0.198	0.216	0.274	0.270
	p	0.001	0.001	0.001	0.001
BMI	r	0.264	0.204	0.283	0.301
	p	0.001	0.001	0.001	0.001
Number of births	r	0.213	0.235	0.288	0.296
	p	0.001	0.001	0.001	0.001
Interventive delivery	r	0.050	0.094	0.110	0.107
	p	0.310	0.057	0.026	0.031

Pearson and Spearman correlation analysis. BMI: Body mass index

regression analysis revealed that while there was a positive association between the delivery of the intervention and UI, it was not statistically significant ($p>0.05$). Deliveries performed at older ages in women may be more risky and interventional. Interventive delivery may have increased the frequency of UI in an age-dependent manner.

In this study, people with chronic illnesses had a greater prevalence of UI. UI was found to occur often in patients with chronic illnesses, according to literature reviews (14,15). The study's findings are consistent with those found in the literature. Chronic diseases are a condition that usually occurs in individuals at an advanced age and continues to be treated throughout life, negatively affecting the systems. It may be a reason that chronic diseases are more common with age and therefore the frequency of UI is higher in those with chronic diseases. At the same time, the fact that chronic diseases cause systemic deterioration in individuals may increase the frequency of UI.

Study Limitation

This study is a descriptive cross-sectional study. The results of education or treatment that can be given to women for urinary incontinence can be supported by experimental clinical studies.

Conclusion

According to this study, 37.3% of women reported having UI, and their quality of life was not significantly affected by them. The number of births, menopause, age, BMI, chronic illnesses, and normal delivery have all been linked to an increased risk of UI in women. Women who experience UI, particularly as they age, suffer from a disorder that impairs their quality of life. According to the results of this study, women typically regarded UI, which could also occur in middle age, as a normal ailment and did not seek medical attention for it. It is crucial that medical personnel, particularly nurses, screen for UI in high-risk populations, refer them to a facility when treatment is required. In order to enhance women's quality of life, it is critical that health professionals especially nurses screen for UI in high-risk populations, refer them to a medical facility for treatment when appropriate, and offer concurrent training.

Ethics

Ethics Committee Approval: Permission to begin the study was acquired from Bezmialem Vakıf University Ethics Committee, with decision number 2023/133 and date of June 7, 2023.

Informed Consent: Those who consented to take part in the study provided informed consent.

Authorship Contributions

Concept: N.K., M.K., Design: N.K., Data Collection or Processing: N.K., Analysis or Interpretation: M.K., Literature Search: N.K., Writing: N.K.

Conflict of Interest: No conflict of interest was declared by the authors.

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