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Determining incontinence awareness, attitude, and frequency in female students enrolled in the Faculty of Health Sciences

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Abstract

Aim: This study was conducted to determine urinary incontinence awareness, attitude, and frequency among female students studying at a faculty of health sciences.

Material and methods: This cross-sectional study was conducted with 458 female students enrolled in a university's faculty of health sciences between February 2023 and April 2023. The data of the study were collected using a "Personal Information Form" and an "Incontinence Awareness and Attitude Scale" prepared by the researchers. Descriptive statistics, independent t-test, and ANOVA test were used to evaluate the data.

Results: The mean age of the students was 21.17±1.70, and only 2% had been diagnosed with urinary incontinence during their lifetime. The mean scores of the students in the sub-dimensions of incontinence awareness were found as follows: factors affecting acceptance of incontinence as a health problem 32.98±5.13, health motivation 7.15±2.51, coping with urinary incontinence 17.25±5.77, limitation 10.54±3.38, and fear of urinary leakage 11.47±4.34.

Conclusion: The mean score of female students on the urinary incontinence awareness scale, factors preventing acceptance of incontinence as a health problem, coping with urinary incontinence, health motivation, and limitation sub-dimensions were found to be at a good level.

Key words: attitude, awareness, student, urinary incontinence

Introduction

Urinary incontinence (UI) is simply defined as the loss of bladder control or involuntary leakage of urine [1]. UI is a common problem that is often underreported due to its embarrassing nature and associated social stigma. Urinary incontinence can have a significant impact on an individual's quality of life, but it can be significantly improved with proper evaluation, treatment, and management [2].

The presence of embarrassment and denial about the existence of incontinence, the hope for spontaneous recovery, and the fear of treatment make it difficult to determine the prevalence of urinary incontinence in society [3]. The prevalence of UI worldwide ranges from 19% to 88%, while in Turkey, it ranges from 20.5% to 68.8% [4-6]. The reasons for this variability are attributed to differences in the definition of urinary incontinence, studies being conducted on different groups, and the use of different data collection methods. Additionally, the prevalence of urinary incontinence varies depending on ethnic origin and race [3].

Studies have shown that awareness of urinary incontinence is low and, individuals try to cope with the problem themselves instead of seeking professional support when they experience it [7]. This situation makes urinary incontinence a more complex issue and negatively affects individuals' daily lives, leading to a decrease in their quality of life [8].

UI is not only a medical problem for women but also one of the long-standing health issues that affects women physically, hygienically, psycho-socially, economically, and sexually [9]. Urinary incontinence is common among women, and there are various effective treatment options for the most common types of UI (stress, urge, and mixed), including lifestyle and behavioral therapy, medication, and minimally invasive procedures. Most women recover with treatment [10]. Identifying the underlying cause of incontinence is critical to providing appropriate treatment [1]. In evaluating patients, priority should be given to the quality of life, prevention of depressive symptoms, evaluation of feelings of loneliness, improvement of social relationship quality, and strengthening of existing social network structures [11].

Aim: This study was designed to determine awareness, attitude, and frequency of incontinence among female students in the Faculty of Health Sciences.

Material and methods

Design

This cross-sectional study was conducted between February and April 2023 with the aim of determining the awareness, attitude, and frequency of incontinence among female students studying in the Faculty of Health Sciences.

Population and dataset

The universe of the study consists of female students who are enrolled in the Faculty of Health Sciences at Karabük University (N=1900). The sample size of the research was determined using the known sample calculation method. It was calculated that a minimum of 320 participants should be reached with a 95% confidence level and a 5% margin of error. However, in order to exceed the target population number, 458 participants were included in the study.

Data collection tools

The data of the study were collected using a "Personal Information Form" and "Incontinence Awareness and Attitude Scale" prepared by the researchers based on a literature review.

Personal information form

The form prepared by researchers based on literature review includes 14 questions that query the socio-demographic characteristics of participants and their status of having urinary incontinence diagnosis.

Incontinence awareness and attitude scale

The urinary incontinence awareness scale, developed by Avci et al. in 2022 to measure individuals' awareness of urinary leakage, consists of 26 items [12]. The scale consists of five sub-dimensions: factors that prevent accepting it as a health problem, coping with urinary incontinence, health motivation, restriction, and fear of urinary leakage. Responses given to each statement on the scale are in a 5-point Likert-type format. The scores obtained from the sub-dimensions are as follows: for the factors that prevent accepting it as a health problem sub-dimension, the minimum score is 8, and the maximum is 40; for the health motivation sub-dimension, the minimum is 5, and the maximum is 25; for the coping with urinary incontinence sub-dimension, the minimum is 6, and the maximum is 30; for the restriction sub-dimension, the minimum is 3, and the maximum is 15; for the fear of urinary leakage sub-dimension, the minimum is 4, and the maximum is 20. There is no total score for the scale. Obtaining high scores from the sub-dimensions of factors that prevent accepting it as a health problem, restriction, and fear of urinary leakage indicate that the individual accepts urinary incontinence as a health problem and does not experience restriction or fear of urinary leakage. Obtaining low scores from the health motivation and coping with urinary incontinence sub-dimensions indicate that the individual has better health motivation and coping with urinary incontinence. The Cronbach's alpha values of the scale's sub-dimensions in the validity and reliability study are as follows: factors that prevent accepting it as a health problem: 0.87, health motivation: 0.92, coping with urinary incontinence: 0.86, restriction: 0.79, fear of urinary leakage: 0.60. In this study, the Cronbach's alpha values of the scale's sub-dimensions are as follows: factors that prevent accepting it as a health problem: 0.75, health motivation: 0.70, coping with urinary incontinence: 0.87, restriction: 0.85, fear of urinary leakage: 0.81. They are within acceptable limits in the literature [13]. The interpretation of the incontinence awareness scale is made as poor, moderate, and good over the median score.

Statistical analysis

Statistical analyses were performed using the SPSS 23.0 software package. It was observed that the Skewness and Kurtosis values of the data remained within the range of +2.0/-2.0, indicating a normal distribution [14]. Continuous data obtained from the study were summarized as mean and standard deviation, while categorical data were summarized as percentage distributions. Independent t-test and ANOVA tests were used for the comparison of means. Multiple comparisons were evaluated using the Bonferroni method. The obtained data were evaluated at a confidence interval of 95%, and a significance level of $p<0.05$ was considered statistically significant.

Ethical aspect of the study

Prior to the study, approval was obtained from the Non-Interventional Clinical Research Ethics Committee of a university (Date: 27.02.2023 and Number: E-77192459-050.99-224247). Necessary permissions were also obtained for the measurement tools to be used in the study. Participants were provided with information about the purpose of the study in accordance with the Helsinki Declaration and were invited to participate voluntarily, with their written consent obtained.

Results

Table 1 Sociodemographic characteristics of the students (n = 458)

Sociodemographic Characteristics	$\bar{X} \pm SS$	Min.max	Mand
Age	21.17±1.70	18-26	21
		n	%
Marital status	Married	19	4.1
	Single	439	95.9
Department	Midwifery	195	42.6
	Nursing	44	9.6
	Child Development	112	24.5
	Physiotherapy and Rehabilitation	107	23.4
Class	1	94	20.5
	2	150	32.8
	3	95	20.7
	4	119	26.0
Revenue status	Income equals expense	224	48.9
	Income is more than expense	67	14.6
	Income less than expense	167	36.5
Place of residence	Homestay	233	50.9
	Dormitory	158	34.5
	Student house	67	14.6
Smoking status	Where	71	15.5
	No	387	84.5
Alcohol status	Where	53	11.6
	No	405	88.4
Chronic disease status	Where	38	8.3
	No	420	91.7
Diagnosis of urinary incontinence	Where	9	2.0
	No	449	98.0

$\bar{X}$:Ortalama, SS:Standart sapma, Min-max: Minimum-maximum, Med:Median

When the socio-demographic characteristics of the students were examined, it was observed that they had an average age of 21.17±1.70 years. Furthermore, 95.9% of the students were single, 42.6% were studying in the midwifery department, and 32.8% were in their second year of study. In terms of lifestyle habits, 15.5% of the participants used cigarettes, while the majority (88.4%) did not consume alcohol. Additionally, 8.3% of the students reported having a chronic disease. Interestingly, only 2% of the participants had been diagnosed with urinary incontinence throughout their lifetime.

When the sub-dimension scores of students' incontinence awareness were examined, it was seen that the total score average of factors affecting the acceptance of incontinence as a health problem was 32.98±5.13, the health motivation score average was 7.15±2.51, the score average for coping with urinary incontinence was 17.25±5.77, the restriction score average was 10.54±3.38, and the fear of urinary leakage score average was 11.47±4.34.

Looking at the results, it can be seen that female students studying in health sciences have good levels of awareness regarding urinary incontinence, as indicated by the scores on the Urinary Incontinence Awareness Scale. The factors that prevent the acceptance of urinary incontinence as a health problem, coping with urinary incontinence, health motivation, and restriction sub-dimensions also show good levels within the scope of the study. However, the sub-dimension of fear of urinary leakage is at a moderate level.

Table 2 Students' Incontinence Awareness Sub-Dimensions Score Averages (n=458)

Incontinence awareness sub-dimensions	$\bar{X}$ ± SS	With (Min.max)
Factors that prevent its acceptance as a health problem	32.98±5.13	34 (17-40)
Health motivation	7.15±2.51	6 (5-17)
Coping with urinary incontinence	17.25±5.77	17 (6-30)
Restriction	10.54±3.38	11 (3-15)
Urinary incontinence fear water	11.47±4.34	11 (4-20)

$\bar{X}$: Ortalama, SS:Standart sapma, Min-max: Minimum-maximum, Med:Median

Table 3 Comparison of the mean scores of urinary incontinence awareness sub-dimensions according to the socio-demographic characteristics of the students (n=458)

	Factors that prevent its acceptance as a health problem	Health motivation	Coping with urinary incontinence	Kısıtlanma	Fear of urinary incontinence
Part					
Midwifery	33.28±5.57	7.28±2.50	16.91±5.96	10.24±3.31	11.02±4,16
Nursing	33.00±4.52	7.06±2.39	17.09±6.02	10.43±3.57	11.61±4.82
Child development	32.83±4.79	6.78±2.08	17.40±5.92	11.19±3.48	12.06±4.39
Physiotherapy and rehabilitation	32.60±4.90	7.35±2.95	17.79±5.17	10.46±3.25	11.63±4.37
Statistics	F=0.450	F=1.215	F=0.573	F=1.960	F=1.462
	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05
Class					
First1	32.37±4.91	7.43±2.49	16.90±5.17	10.79±3.46	11.96±4.33
Second2	32.74±5.38	7.04±2.27	18.01±5.96	10.73±3.18	11.80±4.06
Third3	31.89±5.38	7.42±2.90	17.30±6.48	10.22±3.73	11.36±4.42
Fourth4	34.65±4.37	6.86±2.47	16.53±5.33	10.36±3.26	10.75±4.57
Statistics	F=6.396	F=1.366	F=1.596	F=0.727	F=1.809
	P<0.001*	p>0.05	p>0.05	p>0.05	p>0.05
Income status					
Equal	33.00±5.38	7.22±2.58	17.25±5.98	10.79±3.38	11.91±4.20
Much	33.50±4.29	6.70±1.92	17.52±6.46	10.38±3.22	11.05±4.40
Low	32.76±5.11	7.25±2.61	17.15±5.22	10.26±3.42	11.05±4.46
Statistics	**F=0.507**	F=1.295	F=0.096	F=1.261	F=2.252
	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05
Place of residencei					
Homestay	32.97±5.11	6.94±2.22	16.87±5.92	10.64±3.53	11.84±4.37
Dormitory	33.14±4.95	7.06±2.19	17.68±5.21	10.37±3.31	11.08±4.04
Student house	32.65±5.65	8.11±3.71	17.56±6.51	10.61±3.00	11.11±4.79
Statistics	F=0.213	**F=5.972**	F=1.035	F=0.315	F=1.723
	p>0005	**p<0.05***	p>0.05	p>0.05	p>0.05
Cigarette					
Yes	33.21±5.07	7.18±2.60	19.08±6.15	10.14±3.58	11.67±4.47
No	32.94±5.15	7.15±2.50	16.91±5.65	10.62±3.34	11.43±4.32
Statistics	t=0.396	t=0.094	**t=2.925**	t=-1.099	t=0.422
	p>0.05	p>0.05	**p<0.05***	p>0.05	p>0.05
Alcohol					
Yes	33.15±5.14	7.54±2.70	18.30±5.98	10.09±3.44	11.43±4.70
No	32.96±5.14	7.10±2.48	17.11±5.74	10.60±3.37	11.48±4.30
Statistics	t=0.244	t=1.201	t=1.403	t=-1.034	t=-0.075
	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05
Kronik disease					
Yes	33.89±4.81	7.02±2.50	17.73±6.30	10.76±3.25	12.55±4.63
No	32.90±5.16	7.16±2.51	17.21±5.73	10.52±3.39	11.37±4.30
Statistics	t=1.136	t=-0.335	t=0.536	t=0.413	t=1.598
	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05

* = p<0.05, t = t test in independent groups, F = One-way analysis of variance
** Benferroni = 4>1, 4>2, 4>3

According to the results, there was a statistically significant difference in the mean scores of the sub-dimension of factors preventing the acceptance of urinary incontinence as a health problem among students according to their class level ($p<0.001$). Bonferroni post-hoc analysis was conducted to determine the specific groups between which the difference existed. The analysis revealed that the difference was specifically between the 4th class and the other classes.

In addition, there was a statistically significant difference in the mean scores of the sub-dimension of health motivation among students according to their place of residence ($p<0.05$). Further analysis was conducted to determine which groups the difference was between, and the results showed that the difference was between students living in dormitories and others.

There was also a statistically significant difference in the mean scores of the sub-dimension of coping with urinary incontinence according to the students' smoking status ($p<0.05$).

Discussion

Research in the literature indicates that Urinary Incontinence (UI) is generally not a life-threatening condition, but it can directly impact women's social life and mental health [16-18]. Studies have shown that women with UI complaints experience a lack of self-confidence, are prone to social isolation, and suffer from high levels of anxiety [18]. These findings highlight that UI not only affects physical health but also significantly impacts women's psychosocial well-being.

In this study aimed to determine the awareness, attitudes, and prevalence of incontinence among female students studying at the Faculty of Health Sciences, the prevalence of incontinence was found to be 2%. In the study conducted by Öz Yıldırım et al. (2020), the prevalence of incontinence among students was found to be 28.8%, while in the study conducted by Durukan et al. (2015) with women living in Mersin, the prevalence of incontinence among women was 21.3%. In a study conducted to determine the frequency and risk factors of urinary incontinence in women who applied to Family Health Centers, the prevalence of incontinence was found to be 37.2% (Kılıç, 2016), and in the study conducted by Ghafouri et al. (2014) in Qatar, the prevalence of urinary incontinence in women was found to be 20.7% [3,8,16,17]. Age, obesity, race, obstetric history, chronic constipation, and urinary tract infections have been identified as risk factors for UI [19]. In this current study, the lower frequency of incontinence may be attributed to the low average age of the students and their high awareness as health science students.

In Kılıç's (2016) study, no relationship was found between smoking and UI. In this study, a significant difference was found in the mean scores of the coping with urinary incontinence subscale based on the students' smoking status ($p<0.05$).

In this study, it was observed that students perceived urinary incontinence as a health problem, had good health motivation, and coped well with incontinence without experiencing any restriction fears, but they had a moderate fear of urine leakage. In the study conducted by Öz Yıldırım et al. (2020), it was found that the awareness scale, factors that hinder acceptance of urinary incontinence as a health problem, coping with urinary incontinence, and fear of urine leakage subscales were moderate, while the health motivation subscale was poor, and the restriction subscale was good [8].

A statistically significant difference was found in the mean scores of the subscale of factors that hinder acceptance of urinary incontinence as a health problem based on the students' study year ($p<0.001$). The higher mean scores of fourth-year students compared to other students suggest that awareness increases with the level of education. In addition, the health motivation subscale score of students living in dormitories, which is a crowded environment, was found to be lower than that of students living with their families or in a hostel. Living in a crowded environment like a dormitory may cause a decrease in health motivation.

In conclusion, it was observed that female students studying in health sciences accepted urinary incontinence as a health problem, had good health motivation, and coped well with incontinence without experiencing any restriction fears, but they had a moderate fear of urine leakage.

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