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Seeking consultation for urinary incontinence: Behaviours and barriers among Jordanian women

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Abstract

Introduction: The rates of seeking consultation for urinary incontinence (UI) and the barriers against consultations vary among countries and study populations and are influenced by various factors such as embarrassment, perception of illness, resources and culture.

Objectives: To study healthcare-seeking behaviours and barriers among Jordanian women.

Methods: Between 1 March 2020 and 15 April 2020, we conducted a cross-sectional online survey among women 18 years of age or more who have UI and have access to the internet. We collected women's characteristics, UI types, severity, bother, seeking consultation behaviours and barriers. Logistic regression analyses were used to study the variables associated with seeking consultation.

Results: The data of 1454 women with a mean age (SD) of 41.5 (11.5) years were analysed. Mixed UI was the most common type (56.3%), while 43.8% of the participants sought consultation, and 33.8% waited 1 year before seeking consultation. The most common barriers were embarrassment (52.2%), considering UI as a normal occurrence with ageing (41.5%), and limited expectations of improvement from treatment (42.0%). The most common barriers vary according to UI type. Embarrassment was the most commonly reported barrier by women with mixed UI (29.4%), UI as normal with ageing was mostly considered by women with stress UI (11.5%) and treatment for UI is going to be expensive was expressed by women with mixed UI (19.4%).

Seeking consultation decreased among women with more educational achievement (adjusted odds ratio [aOR]: 0.62; 95% confidence interval [CI]: 0.44–0.87) with university graduates doing so less than women with high school or less educational achievement. Additionally, seeking consultation was more among women who were aware of a family member with UI (aOR: 1.44; 95% CI: 1.03–2.01) compared to women who were not. Also, multiparous women (aOR: 1.8; 95% CI: 1.19–2.77) sought consultation more than nulliparous women.

Seeking a consultation was more among women who were bothered by the impact of UI on various daily activities, namely, household activities (aOR: 1.42; 95% CI: 0.85–2.37), prayers (aOR: 1.7; 95% CI: 1.07–2.71) and sex life (aOR: 2.48; 95% CI: 1.45–4.21) compared to women who were not bothered. Seeking a consultation was less among women who reported embarrassment as a barrier (aOR: 0.534; 95% CI: 0.34–0.84) compared to women who were not embarrassed.

Conclusion: Four in 10 women with UI sought care, but with a considerable delay between the onset of symptoms and actual care seeking. These outcomes could be explained by the impact of various barriers. Additionally, barriers might vary in different cultures and countries, so culture-sensitive questionnaires should be considered when healthcare-seeking consultations and barriers are studied.

KEYWORDS

barriers, healthcare-seeking behaviour, prevalence, urinary incontinence

1 | INTRODUCTION

Urinary incontinence (UI), defined as the complaint of involuntary loss of urine,[1] is a prevalent condition[2] with a considerable negative impact on the quality of life (QoL), which is proportional to its severity.[3,4] Despite this, the rates of seeking consultation for UI and the barriers vary among countries. Ihaji et al.[5] described healthcare-seeking behaviour as a complex process, possibly influenced by various factors such as educational level and gender.

Various studies across the world confirmed the low rates of seeking consultations[6–9] and revealed various barriers against seeking healthcare including embarrassment,[7,10] feeling ashamed,[9] being too busy,[7] worries that they may waste the doctor's time,[7] the belief that it is a transient problem,[8] negative support from important people in a woman's life, nonoptimal healthcare[9] and considering UI as normal with ageing.[10] Additionally, the duration and severity were associated with healthcare-seeking behaviour.[6,8] While there are several questionnaires to study healthcare-seeking behaviour and barriers,[11] El-Azab et al.[10] suggested that such questionnaires should also consider local cultures.

We have recently found a high prevalence of UI among Jordanian women (unpublished material), but are unaware of publications addressing healthcare-seeking behaviour and barriers among Jordanian women. Therefore, we aimed to study healthcare-seeking behaviour and barriers against consultation among Jordanian women who have UI using a validated questionnaire, reflecting the social and cultural characteristics of women in the Middle East.

2 | MATERIALS AND METHODS

2.1 | Study population

We conducted a nation-wide cross-sectional survey through the Facebook platform between 1 March 2020 and 15 April 2020, designed to report on the prevalence, types, severity, factors associated with the presence of UI, healthcare-seeking consultation and barriers against seeking consultation. Women were invited to take part in the survey if they were 18 years of age or more, have UI, defined as any involuntary loss of urine,[1] at least 6 weeks in duration and have a Facebook account or somebody to help them complete the survey. We posted advertisements on Facebook with a link to the study survey, which was left open for 6 weeks. Furthermore, participation in the survey was voluntary and unpaid. Women's characteristic data that were collected included age, educational achievement, marital and employment status, body mass index (BMI) and comorbidities.

2.2 | UI assessment

Data about UI types, severity, accompanying bother and associated factors were collected using three questions, where the first question in the survey was about the presence of UI ('Do you have UI?'), and the other two questions from the Arabic language validated International Consultation on Incontinence Questionnaire-Urinary Incontinence-Short Form (ICIQ-UI-SF)[12] were about frequency ('How often do you have UI?') and

severity ('How much urine do you usually leak?'). Furthermore, a woman is considered to have urgent UI (UUI) if she leaks before she can get to the toilet, to have stress UI (SUI) if she leaks when she coughs, sneezes, or is physically active/exercising and to have mixed UI (MUI) if she has mixed symptoms.[12] The severity of UI was measured based on the ICIQ-UI-SF.[13]

The impact of UI on various aspects of women's lives, healthcare-seeking behaviour and barriers were inventoried with a validated Arabic language questionnaire.[10] Women were asked to rate the impact of UI on personal activities using a 5-point Likert scale (very low, low, moderate, high and very high). Additionally, if UI does not impact any of these activities in women, then they were asked to report that as not applicable (NA). The activities that were studied were household activities, work/job, prayers and sex life. Women who rated the impact as moderate, high or very high were considered to be bothered with UI.

2.3 | Healthcare-seeking behaviour and barriers

For healthcare-seeking behaviour, women were asked if they ever sought consultation, the time between the onset of UI and seeking consultation and how many times they visited healthcare professionals for UI. The barriers that were studied included embarrassment, no need for consultation because UI is normal with ageing, preference to discuss UI with family or friends, belief that UI may resolve spontaneously, limited expectations for improvement from treatment, belief that healthcare workers will not be interested in UI and belief that healthcare for UI is going to be expensive. Women were asked to rate these barriers using a 3-point Likert scale: not at all, to some extent and to a great extent.[10] The barriers were considered to be present if the woman answered 'to some extent' or 'to a great extent.' Additionally, if the barrier did not apply to a woman, she was asked to report that as NA.

2.4 | Sample size

We applied the following formula to determine the sample size: (distribution of 50%)/(margin of error/confidence level score)^2. Considering a confidence interval (CI) of 95% and a 5% margin of error, a sample size of 384 women with UI was required. With an expected UI prevalence of 30%,[2] 1276 women would need to be recruited to explore this topic.

2.5 | Statistical analyses

2.5.1 | Descriptive analysis

During data analysis, we observed discrepancies in the answers to the three questions on the presence, severity and frequency of UI. Because of these discrepancies, we categorised women into three groups: 'consistent reporting of the presence of UI' (i.e., in all three questions on UI, the presence was confirmed), 'consistent reporting of the absence of UI' (i.e., in all three questions absence was confirmed) and 'inconsistent reporting of UI' (i.e., in one or two questions on UI, women reported not having UI).

For all analyses, we selected the outcomes of participants who consistently reported the presence of UI throughout the complete survey. Various variables were regrouped for better comparisons; these variables included age (<29, 30–39, 40–49, 50–59 and >60 years), BMI (underweight, normal weight, overweight and obese), parity, number of caesarean section, impact and severity of UI. The severity of UI was grouped into slight, moderate, severe and very severe groups, based on the ICIQ-UI-SF.[13] Pearson's χ^2 test was used to study associations between the type of UI and the barriers.

2.5.2 | Multivariable analysis

For variables associated with seeking consultation, logistic regression analysis was used. For bivariate regression, each of the variables was entered alone in the regression with the binary outcome variable 'seeking consultation for UI.' In multivariable regression, backward elimination was carried out on a complete model with all the significant variables with a $p < 0.05$ from the bivariate analysis. These variables (ordered according to increasing importance in the model) include family history of UI, UI may resolve spontaneously as a barrier to seeking consultation, level of education, impact of UI on sex life, parity and embarrassment about UI as a barrier.

The 'step' function in R removes the variables whose elimination progressively decreases the Akaike information criterion (AIC) until a point is reached where the elimination of the next variable does not statistically change the AIC. Age was not eliminated in the final multivariable model even though it was not significant because the 'step' function in R does stepwise eliminations based on minimising the AIC of the model at each step and not p value.

The AIC for the complete model was 1355.8 (null deviance was 1439 on 1067 degrees of freedom, and residual deviance was 1267.8 on 1024 degrees of

freedom). The final multivariable model after backward elimination had an AIC of 1333.2 (null deviance was 1442.6 on 1069 degrees of freedom, and residual deviance was 1287.2 on 1047 degrees of freedom).

All logistic models were carried out in R[1] software using the 'glm' function with the 'family' option set to 'binomial'. Backward elimination was done with the 'step' function in R with the direction 'backward'. The Statistical Package for Social Studies (IBM) and R[1] software were used for data analysis. Ethics was granted by the Institutional Review Board of Al Balqa Applied University.

3 | RESULTS

The total number of respondents was 2214. We excluded 96 pregnant women and 691 women who had inconsistent reporting of the presence of UI. The data of 1454 nonpregnant women who consistently reported to having UI were analysed. Their mean (SD) for age and BMI were 41.5 (11.5) years and 29.4 (5.5) kg/m^2, respectively, and 75.9% were married. Table 1 summarises the characteristics of the study population.

3.1 | Types, severity and bother of UI

The most common type was MUI (56.3%), and the most common severity degree of UI was moderate (51.9%). The very severe degree was most common in MUI (5.1%). Data analysis shows that 42.2%, 35.5% and 29.5% of women were bothered because of the negative impact of UI on prayers, jobs and sex lives, respectively (Table 2).

3.2 | Healthcare-seeking behaviour and barriers

A total of 637 women (43.8%) sought consultation. Of these, 33.8% and 19.2% waited 1 and 2 years before seeking consultation, respectively. The most common type of UI women sought consultation for is MUI (60.1%), as seen in Table 2.

The most commonly reported barriers against seeking consultation were embarrassment (52.2%), limited expectations of improvement from treatment (42.0%) and belief that healthcare for UI is going to be expensive (41.4%). Furthermore, women with different types of UI reported different barriers, and all barriers were rated to a 'great extent' by women who have MUI. Embarrassment was most commonly reported by women with MUI (29.4%), considering UI as normal with ageing by women

TABLE 1 Characteristics of the study population and severity of UI.

Variable	Category	Frequency	Percentage
Age groups (years)	<29	250	17.2
	30–39	308	21.2
	40–49	532	36.6
	50–59	303	20.8
	60 and older	61	4.2
Marital status	Single	220	15.1
	Married	1104	75.9
	Separated	69	4.7
	Widow	61	4.2
Educational achievement	High school or less	322	22.1
	College	300	20.6
	University	832	57.2
Currently employed	Yes	608	41.8
Smoker	Yes	257	17.7
BMI groups (kg/m^2)	Underweight	324	22.3
	Normal weight	513	35.2
	Overweight	552	38.0
	Obese	65	4.5
Types of comorbidity	Yes	665	45.7
	Hypertension	221	15.2
	Diabetes mellitus	104	7.2
	Chronic cough	90	6.2
	Chronic constipation	140	9.6
	Depression	89	6.1
Parity	Nulliparous	257	17.7
	Multiparous	1197	83.3
Number of previous CS	Zero	1009	69.4
	One or more	445	30.6
Postmenopausal	Yes	399	27.4
Family history of UI	Yes	598	41.1
	No	479	32.9
	I do not know	377	25.9
Distribution of the severity degree of the three types of UI			
SUI	Slight	142	32.7
	Moderate	223	51.4

TABLE 1 (Continued)

Variable	Category	Frequency	Percentage
	Severe	65	15.0
	Very severe	3	0.9
UUI	Slight	45	22.2
	Moderate	108	53.5
	Severe	44	21.8
	Very severe	5	2.5
MUI	Slight	93	11.4
	Moderate	424	51.8
	Severe	260	31.7
	Very severe	42	5.1

Abbreviations: BMI, body mass index; CS, caesarean section; MUI, mixed urinary incontinence; SUI, stress urinary incontinence; UUI, urge urinary incontinence.

with SUI (11.5%), and treatment for UI is going to be expensive by women who have MUI (19.4%). Table 3 shows the associations between the various barriers and the types of UI. The only statistically significant association was found in women with MUI, where embarrassment was the most commonly reported barrier ($\chi^2 = 21.2$, $df = 6$, $p = 0.002$).

Multivariable analyses yielded that age, marital status, BMI, history of hysterectomy, menopausal status, type of UI and effect of UI on women's jobs were not significantly associated with seeking consultation (Table 4).

Seeking consultation decreased among women with more educational achievement (adjusted odds ratio [aOR]: 0.62; 95% CI: 0.44–0.87) with university graduates doing so less than those with high school or less educational achievement. Additionally, seeking consultation was more among women who were aware of a

TABLE 2 Impact of UI on life, bother and healthcare-seeking behaviour.

Impact of UI ($N = 1454$)						
Category	**NA, N (%)[a]**	**Very low, *N* (%)**	**Low, *N* (%)**	**Moderate, *N* (%)**	**High, *N* (%)**	**Very high, *N* (%)**
Housework	225 (17.5)	513 (35.3)	300 (20.6)	287 (19.7)	73 (5.0)	26 (1.8)
Job	571 (39.3)	330 (22.7)	193 (13.3)	215 (14.8)	102 (7.0)	43 (3.0)
Prayers (N = 1454)	226 (15.5)	339 (23.3)	216 (14.9)	299 (20.6)	219 (15.1)	155 (10.7)
Sex life	1044 (71.8)	196 (13.5)	86 (5.9)	73 (5.0)	33 (2.3)	22 (1.5)
Bother from impact of UI ($N = 1454$)						
Category	**NA, *N* (%)**		**Not bothered, *N* (%)**		**Bothered, *N* (%)**	
Housework	255 (17.5)		813 (55.9)		386 (26.5)	
Job	571 (39.3)		330 (22.7)		553 (38.0)	
Prayers	226 (15.5)		555 (38.2)		673 (46.3)	
Sex life	1044 (71.8)		282 (19.4)		128 (8.8)	
Healthcare-seeking behaviour.						
Sought consultation for UI ($N = 1454$)			Yes		637 (43.8)	
			No		817 (56.2)	
Time between onset of UI and help-seeking ($N = 637$)			1 year		215 (33.8)	
			2 years		123 (19.2)	
			3 years		57 (8.7)	
			4 years		80 (12.6)	
			≥5 years		162 (25.4)	
How many times did you visit a healthcare worker for UI? ($N = 418$)			One time		193 (46.3)	
			Two times		76 (18.2)	
			Three times		55 (13.2)	
			Four times		21 (5.0)	
			Five times or more		73 (17.5)	

(Continues)

TABLE 2 (Continued)

Bother from impact of UI ($N = 1454$)			
Category	**NA, *N* (%)**	**Not bothered, *N* (%)**	**Bothered, *N* (%)**
Women who sought consultation according to UI type ($N = 637$)		SUI	170 (26.6)
		UUI	84 (13.3)
		MUI	383 (60.1)

Abbreviations: MUI, mixed urinary incontinence; SUI, stress urinary incontinence; UUI, urge urinary incontinence; UI, urinary incontinence.
[a]Due to missing values, the numbers included in the data analyses vary for the different variables.

TABLE 3 Correlations between barriers against seeking consultation for UI and the type of UI.

		Type of urinary incontinence			
Barriers	**Category**	**UUI, *N* (%)**	**SUI, *N* (%)**	**MUI, *N* (%)**	***p* Value[a]**
Embarrassment	Not at all	61 (14.8)	151 (36.7)	199 (48.8)	0.002
	To some extent	54 (14.9)	105 (29.0)	203 (56.1)	
	To a great extent	35 (11.6)	71 (23.6)	195 (64.8)	
	Not applicable	21 (16.5)	40 (31.5)	66 (52.0)	
No need for consultation: UI is normal with ageing	Not at all	74 (14.8)	156 (31.2)	270 (54.0)	0.90
	To some extent	53 (15.1)	114 (32.5)	184 (52.4)	
	To a great extent	13 (11.5)	41 (36.3)	59 (52.2)	
	Not applicable	23 (14.9)	45 (29.2)	86 (55.8)	
No need for consultation: UI may resolve spontaneously	Not at all	66 (13.4)	148 (30.1)	277 (56.4)	0.86
	To some extent	54 (14.4)	115 (30.7)	205 (54.8)	
	To a great extent	0 (0)	0 (0)	0 (0)	
	Not applicable	38 (15.9)	76 (31.8)	125 (52.3)	
Prefer to discuss UI with family or friends	Not at all	116 (14.2)	249 (30.5)	452 (55.3)	0.91
	To some extent	30 (14.9)	66 (32.7)	106 (52.5)	
	To a great extent	8 (14.3)	15 (26.6)	33 (58.9)	
	Not applicable	6 (20.0)	10 (33.3)	14 (46.7)	
Limited expectation for improvement from treatment	Not at all	75 (14.0)	159 (29.6)	303 (56.4)	0.67
	To some extent	45 (14.0)	99 (30.8)	177 (55.1)	
	To a great extent	20 (14.5)	41 (29.7)	77 (55.8)	
	Not applicable	15 (15.6)	37 (38.5)	44 (45.8)	
Healthcare workesr will not be interested in my UI	Not at all	94 (15.2)	189 (30.6)	334 (54.1)	0.58
	To some extent	31 (12.0)	81 (31.3)	147 (56.8)	
	To a great extent	14 (13.7)	26 (25.5)	62 (60.8)	
	Not applicable	17 (15.7)	38 (35.2)	53 (49.1)	
Healthcare for UI is going to be expensive	Not at all	79 (14.7)	179 (33.3)	279 (52.0)	0.10
	To some extent	38 (13.6)	82 (29.4)	159 (57.0)	
	To a great extent	25 (13.2)	42 (22.2)	122 (64.6)	
	Not applicable	15 (12.1)	40 (32.3)	69 (55.6)	

Abbreviations: MUI, mixed urinary incontinence; SUI, stress urinary incontinence; UUI, urgency urinary incontinence; UI, urinary incontinence.
[a]*p* Values are based on $\chi^{2.}$

TABLE 4 Bivariate and multivariable binary logistic regression results.

Variable	Bivariable		Multivariable	
	OR (95% CI)	*p* Value	Adjusted OR (95% CI)	*p* Value
Age	1.02 (1.01–1.03)	<0.001	1.01 (0.997–1.02)	0.138
Marital status				
Single	Reference			
Married	1.97 (1.45–2.69)	<0.001	NA	NA
Separated	1.97 (1.14–3.44)	0.015		
Widowed	1.70 (0.95–3.04)	0.076		
Education				
≤High school				
Diploma	0.79 (0.58–1.09)	0.15	0.71 (0.46–1.07)	0.106
University	0.59 (0.46–0.76)	<0.001	0.62 (0.44–0.87)	0.006
BMI groups				
Normal weight				
Underweight	0.65 (0.49–0.87)	0.004	NA	NA
Overweight	1.09 (0.85–1.38)	0.494		
Obese	1.18 (0.71–1.99)	0.520		
Parity				
Nulliparous				
Multiparous	2.20 (1.64–2.94)	<0.001	1.81 (1.19–2.77)	0.006
Menopausal status				
Premenopausal				
Postmenopausal	1.33 (1.05–1.67)	0.0169	NA	NA
Had hysterectomy				
No				
Yes	1.96 (1.19–3.23)	0.008	NA	NA
Type of UI				
MUI				
OAB	0.81 (0.59–1.11)	0.186	NA	NA
SUI	0.74 (0.58–0.93)	0.0111		
Family history of UI				
I do not know				
Yes	1.50 (1.15–1.95)	0.003	1.44 (1.03–2.01)	0.031
No	1.60 (1.21–2.1)	<0.001	1.47 (1.03– 2.11)	0.036
Effect on housework				
Not applicable				
Not bothered	1.62 (1.2–2.19)	0.002	1.60 (1.06–2.42)	0.026
Bothered	2.64 (1.89–3.68)	<0.001	1.42 (0.85–2.37)	0.186

(Continues)

TABLE 4 (Continued)

Variable	Bivariable OR (95% CI)	Bivariable *p* Value	Multivariable Adjusted OR (95% CI)	Multivariable *p* Value
Effect on work/job				
Not applicable				
Not bothered	1.01 (0.79–1.28)	0.961	NA	NA
Bothered	1.53 (1.17–1.99)	0.002		
Effect on prayers				
Not applicable				
Not bothered	1.36 (0.98–1.88)	0.068	1.41 (0.91–2.19)	0.126
Bothered	2.22 (1.61–3.05)	<0.001	1.7 (1.07–2.71)	0.024
Effect on sex life				
Not applicable				
Not bothered	1.69 (1.3–2.21)	<0.001	1.36 (0.98–1.9)	0.070
Bothered	3.23 (2.19–4.77)	<0.001	2.48 (1.45–4.21)	<0.001
Barrier: Embarrassment				
Not applicable				
No	1.32 (0.88–1.97)	0.176	1.09 (0.69–1.73)	0.711
Yes	0.728 (0.49–1.07)	0.107	0.534 (0.34–0.84)	0.007
Barrier: Resolves spontaneously				
Not applicable				
No	1.78 (1.29–2.45)	<0.001	1.34 (0.93–1.93)	0.117
Yes	0.92 (0.65–1.30)	0.638	0.89 (0.61–1.31)	0.555
ICIQ score	1.10 (1.07–1.13)	<0.001	1.06 (1.02–1.11)	0.002

Abbreviations: BMI, body mass index; CI, confidence interval; ICIQ, International Consultation on Incontinence Questionnaire; MUI, mixed urinary incontinence; NA, not included in the multivariable analysis because of exclusion using backward elimination; OR, odds ratio; SUI, stress urinary incontinence; UUI, urgency urinary incontinence; UI, urinary incontinence.

family history of UI (aOR: 1.44; 95% CI: 1.03–2.01) compared to women who were not aware and among multiparous women (aOR: 1.8; 95% CI: 1.19–2.77) compared to nulliparous women.

The results showed that seeking consultation was more among women who were bothered by the impact of UI on various daily activities, namely, household (aOR: 1.42; 95% CI: 0.85–2.37), prayers (aOR: 1.7; 95% CI: 1.07–2.71) and sex life (aOR: 2.48; 95% CI: 1.45–4.21) compared to women who were not bothered.

Data analysis showed that seeking consultation was less among women who reported embarrassment as a barrier (aOR: 0.534; 95% CI: 0.34–0.84) compared to women who were not embarrassed. Additionally, the higher the ICIQ score the more likely a woman would seek consultation. Each unit increase in ICIQ score was associated with a 10% increased likelihood of seeking consultation.

4 | DISCUSSION

4.1 | Impact of UI and healthcare-seeking behaviour

The negative impact of UI on women's lives is multidimensional affecting psychological, physical, sexual and daily activities.[14] In our study, while the most commonly reported degree of negative impact on daily activities was moderate, the impact on prayers was very high and on a sex life very low. These very high and very low negative impacts on prayer and sexual lives,

respectively, may be explained by religious and cultural reasons. Regarding the impact on prayers, over 98% of the Jordanian population are Muslims,[15] and are expected to pray five times per day. This ritual requires Muslims to perform an ablution before prayers every time they pass or leak urine. These frequent ablutions may pose a burden on individuals who are keen to pray. Additionally, leaking urine while praying disrupts prayers.[16] The negative impact of UI on prayers is in line with earlier studies from the Middle East.[10,17]

The negative impact on sex life shown in our study is in keeping with published regional[10,17] and international reports.[18] While the impact in our study was low compared to other studies, conservative cultures are less likely to disclose information about sex lives.[19] Therefore, the outcome in our study population might be an underestimation of the true impact.

4.2 | The behaviour of seeking consultation

About 4 in 10 women in our survey reported seeking consultation for UI. This is in line with a recent metanalysis from the Middle East that showed a wide range of rates depending on the study population,[17] and an international report showed that around 40% of women with different types of UI sought consultation.[7]

Over half of the women in our study waited for 2 years before seeking consultation, and one-fourth waited for more than 5 years. The duration between the onset of UI and seeking consultation also varies in published reports. In support of our results, a study from Turkey showed that almost 50% of women with UI sought consultation between 2 and 5 years.[20] In another report, the mean duration before seeking consultation was 3 years.[21]

4.3 | Barriers against seeking consultation

The most commonly reported barriers were embarrassment, considering UI as a normal occurrence with ageing, limited expectations of improvement from treatment and a belief that treatment might be expensive. Similar common barriers were reported by El-Azab et al.[10] in a report from Egypt. In our study, around 40% of women believed that the treatment of UI might be expensive, reflecting the inadequacy of the local healthcare system in managing UI. However, in countries where there is a structured healthcare, women did not perceive financial impact as a barrier.[7]

In this study, barriers vary according to the type of UI. While embarrassment was the most commonly reported barrier by women who had MUI, considering UI as normal with ageing and the belief that healthcare for UI is going to be expensive were the most commonly reported by women who had SUI and MUI, respectively. The reporting of different barriers by women according to the type of UI was shown in another international report.[7] The most frequently reported barriers were embarrassment and women being too busy for SUI, and embarrassment and women being worried about wasting the doctor's time for women with bothersome UUI.

4.4 | Factors associated with seeking consultation

Age, marital status, BMI, history of hysterectomy, menopausal status, type of UI and effect of UI on women's jobs were not significantly associated with seeking consultation in a multivariable analysis.

Our results showed that university graduates were less likely to seek consultation compared to women with less educational achievement. In support of our results, Morhason-Bello et al.[22] showed that the odds of seeking consultation were less among women with more educational achievement. Furthermore, our results showed that nulliparous women were less likely to seek consultation compared to multiparous women, and this may be explained by the association between parity and the development of UI.[23] There seems to be a link between educational achievement and parity as reported by Jalovaara et al.[24] They showed that there is an association between lower educational achievement and higher parity. Therefore, it seems logical to discuss women's behaviour in seeking consultation for UI in the context of both their educational achievement and parity together.

In our study, the association between women's educational achievement and seeking consultation contradicted our assumption that the higher the educational achievement, the more the knowledge, and therefore the higher the rate of healthcare-seeking consultation. A possible explanation is that in a recent nationwide survey about the prevalence and associated factors of UI among Jordanian women, this study is part of the results which showed that women with lower educational achievement were more likely to report UI (unpublished materials). This is probably related to a higher percentage of women with less educational achievement being married and multiparous, and therefore having demanding household activities, which make UI more bothersome and them more likely to seek consultation.

Our data suggest that women who were aware of a family member who has UI were more likely to seek consultation compared to women who were not aware. While there are no published reports to cross-examine our result with, we believe that if a woman is aware of a family member who has UI, she is probably likely to be aware of its negative impact and bother and the possibility of treatment and improvement, and therefore more likely to seek consultation.

The degree of bothersome UI on various women's activities influenced healthcare-seeking consultation in our study population, where women were more likely to seek consultation if the degree of bother was high, which was shown in another report.[25] Additionally, the negative impact on prayers was higher than on household activities and sex lives. Comparable results were shown in another report.[10] Overall, it seems that women who did not experience an impact on their daily activities had the lowest rate of seeking consultation, followed by women who were impacted but without being bothered, and the highest rate of seeking consultation was among women who were bothered.

The negative impact of UI on prayers is specific to Muslim culture because of the requirement for prayers and the possibility of an interruption of their prayers by UI, and this was shown in our results. Reports from other Muslim countries showed similar results.[10,16] Therefore, the results of our study support the argument of El-Azab et al.[10] that questionnaires about healthcare-seeking behaviour and barriers against consultation in women with UI should reflect the local culture. Otherwise, the study will not identify barriers appropriately, and this in return will not provide healthcare policymakers with the important information needed to manage UI.

Women who did not think that UI may resolve spontaneously sought consultation more compared to women who thought UI may resolve spontaneously. This probably reflects poor knowledge about UI as a disease and was shown to act as a barrier against seeking consultation for UI among women.[17,25]

The results showed a clear association between the severity of UI and seeking consultation. This is in line with the report of Schreiber Pederson et al.,[6] who showed that compared to women with a more severe degree of UI, women with a less severe degree were less likely to seek consultation. The authors argued that the reason is that women did not consider UI at this degree a problem.

Increasing rates of seeking consultation for UI are challenging. While improving women's knowledge about UI had not been associated with a change in seeking consultation,[26] physicians ranked lack of awareness among healthcare practitioners and patients and inadequate medical services high among the barriers against seeking consultation for UI.[27] This reflects that seeking healthcare consultation is a complex process,[5] and includes a complex interaction between various factors related to the diseases, the patients and their social factors.[27]

4.5 | Study strength

A high response rate and the use of the Arabic language-validated ICIQ-UI-SF questionnaire to study the characteristics of UI, along with another culture and language-sensitive validated questionnaire to study healthcare-seeking consultation and barriers, should make our results more robust.

4.6 | Study limitation

The results are based on self-reported answers that might be a source of bias. Also, it is likely that response bias will be present in this sample as only those interested in the topic will have joined. The sample size exceeded the needed sample, making it likely that the information gathered is accurate. Response bias could have influenced the prevalence rates described, but we expect less impact on the described associations. We have not studied what investigations and treatment were offered to women who sought consultation because it was not the aim of the study. Participants were given the opportunity to answer any question they felt comfortable answering; this caused different response rates to different questions. The low percentage of explained variance of the multivariable models suggests that we were unable to include the major characteristics influencing healthcare-seeking behaviour.

5 | CONCLUSION

Four in 10 women with UI sought care, but with a considerable delay between the onset of symptoms and actual care seeking. These outcomes could be explained by the impact of various barriers. Additionally, barriers might be different in various cultures and countries. Therefore, culture-sensitive questionnaires should be considered when seeking healthcare consultation and when studying barriers.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data will be available on demand.

ETHICS STATEMENT

The study was approved by the Institutional Review Board of Al Balqa Applied University. Participation in the study was voluntary.

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