

# Help-seeking behaviour among women with urinary incontinence: a cross-sectional study in two gynaecology clinics

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**Introduction:** This study aimed to assess the help-seeking behaviour of women with urinary incontinence (UI) and their knowledge on UI and to identify the barriers to seeking medical care among women in two gynaecology clinics.

**Methods:** Women who attended the gynaecology clinics of United Christian Hospital and Tseung Kwan O Hospital between May 2019 and May 2020 were invited to complete a questionnaire. The Urogenital Distress Inventory Short Form (UDI-6) was used to determine the prevalence and type of UI. The Incontinence Impact Questionnaire Short Form (IIQ-7) was used to assess the impact of UI on the quality of life in terms of physical, psychological, and social domains.

**Results:** 639 women (mean age, 43.6±11.5 years) were included for analysis. Of the 639 participants, 424 (66.4%) had symptoms of UI. Of them, 214 (50.4%) had mixed UI, 160 (37.7%) had stress UI, and 50 (11.8%) had urge UI. 45.8% of women with symptoms of UI had impairment in quality of life. 55.7% of women with symptoms of UI had consulted a doctor. Older women ( $p=0.005$ ), women with more severe UI ( $p<0.001$ ), and those with more severe impairment in quality of life ( $p=0.002$ ) were more likely to consult a doctor. Inadequate knowledge on the treatment options (adjusted OR=0.35,  $p=0.002$ ) and perception of not being bothered by UI (adjusted OR=0.51,  $p=0.038$ ) were independent predictors for barriers to help-seeking behaviour, whereas the fear of having a serious condition was an independent predictor for seeking medical help (adjusted OR=2.18,  $p=0.014$ ).

**Conclusion:** There is a need to improve public education on treatment options and preventive strategies for UI to encourage symptomatic women to seek medical help. Clinicians should be more proactive in asking for symptoms of UI during consultation.

**Keywords:** Help-seeking behaviour; Hong Kong; Surveys and questionnaires; Urinary incontinence

## Introduction

Urinary incontinence (UI) is a common health problem among women, with a prevalence of 25% to 45%<sup>1</sup>. Stress UI is defined as involuntary loss of urine associated with effort/physical exertion or sneezing/coughing, whereas urge UI is associated with urgency and mixed UI is associated with urgency and effort/physical exertion or sneezing/coughing<sup>2</sup>. Similar to chronic medical diseases, UI impacts the quality of life in terms of limitation in physical activity, psychological distress, and social isolation<sup>3</sup>. Nonetheless, only a minority of symptomatic women seek medical advice, with a consultation rate of <40%<sup>4-10</sup>. Common barriers to help-seeking behaviour include inadequate knowledge on the nature and treatment of UI, not considering symptoms to be severe, regarding UI as a normal ageing process or normal consequence of childbirth, and embarrassment in talking about UI with doctors<sup>1,4,6,11</sup>. 40% to 75% of women agree to the misperception that UI is a normal ageing process<sup>1</sup>. Among Hong Kong Chinese women, knowledge on UI is poor, with 78.3% not knowing stress UI as a disease entity, 60.6% accepting UI as a normal ageing process, and only 25% of symptomatic

women seeking medical advice<sup>5</sup>. Perceiving UI as a minor problem and feeling ashamed to ask for help are the most common barriers to seeking help<sup>5</sup>.

Improvement in knowledge alone does not necessarily result in a positive change in help-seeking behaviour<sup>1</sup>. We aim to assess the help-seeking behaviour of women with UI and their knowledge on UI and to identify the barriers to seeking medical care in order to formulate better healthcare strategies and promote a more positive attitude for women with UI.

## Methods

This cross-sectional study was approved by the Kowloon Central / Kowloon East Cluster Research Ethics Committee (reference: KC/KE-18-0265/ER-4). Women who attended the gynaecology clinics of United Christian Hospital and Tseung Kwan O Hospital between May 2019 and May 2020 were invited to complete a questionnaire.

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Those who already attended the urogynaecology subspecialty clinic were excluded, as were those who were aged <18 years, pregnant, non-Chinese ethnicity, or unable to understand Chinese.

The self-administered questionnaire consisted of five sections: (1) demographics, (2) knowledge and symptoms of UI, (3) impairment of quality of life (for symptomatic women), (4) whether they had consulted a doctor for any symptoms of UI, and (5) hypothesised barriers to seeking medical help. Nurses would provide assistance in completing the questionnaire if participants encountered problems. Knowledge of UI was assessed using five yes/

no statements. The six-item Urogenital Distress Inventory Short Form (UDI-6) was used to determine the prevalence and type of UI, with scores ranging from 0 (asymptomatic) to 3 (severe) for symptoms of UI. The seven-item Incontinence Impact Questionnaire Short Form (IIQ-7) was used to assess the impact of UI on the quality of life in terms of physical, psychological, and social domains, using a four-point rating scale. The Chinese version of both questionnaires showed good internal consistency and test-retest reliability<sup>12</sup>.

Statistical analysis was performed using SPSS (Windows version 23; IBM Corp, Armonk [NY], US).

**Table 1. Associations between patient characteristics and consultation rate**

Characteristic	No. of women	No (%) of women with urinary incontinence	Consultation rate in women with urinary incontinence, %	p Value
Total	639	424 (66.4)	55.7	
Age group, y				0.005
18-40	252	131 (52.0)	38.2	
41-50	206	141 (68.4)	36.2	
51-60	143	120 (83.9)	50.8	
61-80	38	32 (84.2)	65.6	
Body mass index, kg/m <sup>2</sup>				0.027
<18.5	42	16 (38.1)	56.3	
18.5-22.9	281	172 (61.2)	40.1	
23-24.9	192	140 (72.9)	40.0	
≥25	124	96 (77.4)	51.0	
Parity				0.372
0	224	118 (52.7)	39.0	
1	198	137 (69.2)	40.9	
2	151	119 (78.8)	47.1	
3+	66	50 (75.8)	50.0	
Mode of delivery				0.738
Vaginal delivery	305	229 (75.1)	41.9	
Vacuum extraction	36	31 (86.1)	54.8	
Forceps delivery	8	6 (75.0)	50.0	
Caesarean section	68	39 (57.4)	51.3	
Education level				0.059
No formal	11	9 (81.8)	55.6	
Primary	54	42 (77.8)	61.9	
Secondary	390	275 (70.5)	40.7	
Tertiary	184	98 (53.3)	40.8	
Occupation				0.312
Housewives	243	177 (72.8)	48.0	
Manual workers	80	54 (67.5)	38.9	
Health care workers	51	26 (51.0)	42.3	
Professionals	31	17 (54.8)	52.9	
Others	234	150 (64.1)	38.0	

Associations between consultation rate and patient demographics were determined using the Chi-squared test or the z-test with a Bonferroni correction. Mann-Whitney *U* test was used to evaluate the association between consultation rate and severity of UI (UDI-6 score) and impact on the quality of life (IIQ-7 score). Logistic regression was used to assess the correlations between consultation rate and various barriers to seeking help. Variables with significant correlation were further analysed with binomial logistic regression to identify independent factor of help-seeking behaviour. The association between demographics and the level of knowledge was evaluated using the Kruskal-Wallis test. Pairwise comparison using the Dunn procedure with a Bonferroni correction for multiple comparisons was performed as post hoc analysis. A *p* value of <0.05 was considered statistically significant.

## Results

Of approximately 8320 women attended the gynaecology clinics during the study period, 656 (7.9%) agreed to participate and completed the questionnaire. After excluding 17 questionnaires with missing data, 639 were analysed (Table 1). The mean patient age was 43.6±11.5 years and the mean body mass index was 23.9±5.2 kg/m<sup>2</sup>. The most common reasons for attending the gynaecology clinics were menstrual disorder (28.5%) and uterine fibroids (16.1%). Of the 639 participants, 424 (66.4%) had symptoms of UI. Of them, 214 (50.5%) had mixed UI, 160 (37.7%) had stress UI, and 50 (11.8%) had urge UI. 45.8% of women with symptoms of UI had impairment in quality of life (Table 2).

Participants' knowledge on UI was good; majority of participants responded correctly to the statements, although 51.8% of them still perceived UI as a normal ageing process (Table 3). Women aged 18 to 40 years (*p*=0.001) and those with tertiary education (*p*<0.001) had higher level of knowledge of UI than the other groups. Healthcare workers and professionals had the highest level of knowledge of UI, but the difference to other occupations was not significant (*p*=0.092).

55.7% of women with symptoms of UI had consulted a doctor, most commonly a general practitioner (46.4%), followed by a gynaecologist (36.4%) and a urologist (14.2%). The consultation rate increased with age, especially for the age-group 61-80 years (*p*=0.005). Body mass index correlated with the consultation rate (*p*=0.027), but all pairwise comparisons were not significant after post hoc analysis. Women with more severe UI (*p*<0.001)

and those with more severe impairment in quality of life (*p*=0.002) were more likely to consult a doctor. Type of UI (*p*=0.383), level of knowledge of UI (*p*=0.402), and awareness of the subspecialty of urogynaecology (*p*=0.325) did not correlate with the consultation rate.

Barriers to help-seeking behaviour that were predictive of a lower consultation rate were inadequate knowledge on the treatment options of UI (odds ratio [OR]=1.90, *p*=0.019), the perception of not being bothered by UI (OR=1.59, *p*=0.018), and the fear of being diagnosed with a serious condition (OR=2.73, *p*<0.001) [Table 4].

In binomial logistic regression analysis, inadequate knowledge on the treatment options (adjusted OR=0.35, *p*=0.002) and perception of not being bothered by UI (adjusted OR=0.51, *p*=0.038) were independent predictors for barriers to help-seeking behaviour, whereas the fear of having a serious condition was an independent predictor for seeking medical help (adjusted OR=2.18, *p*=0.014) [Table 5].

## Discussion

The consultation rate among women with UI has been reported to be 10% to 31%<sup>5-8,13-16</sup>. In the present study, the consultation rate of 55.7% is likely a result of selection bias, as the recruitment was in a hospital setting, and these women may be more willing to consult a doctor for their symptoms. Only 25% of participants reported embarrassment as a barrier to seeking help, in contrast to 67% of women with UI opted not to mention their symptoms to their doctors a study in Turkey<sup>16</sup>. Our sample is not representative of the general population. Many participants attended the clinic for reasons other than UI. 52% of younger participants aged 18 to 40 years reported symptoms of UI. The relatively high incidence of UI is a result of selection bias and can be confounded by other gynaecological conditions. UI often coexists with other gynaecological conditions (such as uterine fibroids). Although most women had mild UI, nearly half had impairment in quality of life. This highlights the burden of UI and the importance of seeking medical help.

In the present study, older age, greater symptom severity, and quality of life impairment were predictors of help-seeking behaviour, consistent with results in previous studies<sup>7,10,11,13,16-18</sup>. The higher consultation rate among obese women could be explained by their higher prevalence of UI<sup>19</sup>, but the consultation rate among underweight women was similarly high. None of these factors correlated with the consultation rate after logistic regression analysis. The

**Table 2. Severity of urinary incontinence and impairment on quality of life**

	Mean±SD	No*	Mild*	Moderate*	Severe*
Urogenital Distress Inventory Short Form total score	14.5±12.5				
Irritation	17.7±16.5				
Frequent urination		233 (36.5)	234 (36.6)	150 (23.5)	22 (3.4)
Urge incontinence		412 (64.5)	161 (25.2)	56 (8.8)	10 (1.6)
Stress	15.6±16.9				
Stress incontinence		294 (46)	240 (37.6)	78 (12.2)	27 (4.2)
Small amounts of leakage		383 (59.9)	201 (31.5)	45 (7.0)	10 (1.6)
Obstruction / discomfort	10.3±13.8				
Difficulty emptying bladder		486 (76.1)	114 (17.8)	32 (5.0)	7 (1.1)
Pain or discomfort in lower abdominal or genital area		384 (60.1)	194 (30.4)	48 (7.5)	13 (2.0)
Incontinence Impact Questionnaire Short Form total score	7.8±16.0				
Physical activity	7.7±17.0				
Ability to do household chores		553 (86.5)	62 (9.7)	22 (3.4)	2 (0.3)
Physical recreation		508 (79.5)	88 (13.8)	33 (5.2)	10 (1.6)
Travel	6.7±16.4				
Entertainment activities		551 (86.2)	60 (9.4)	24 (3.8)	4 (0.6)
Ability to travel by car or bus >30 minutes from home		537 (84.0)	69 (10.8)	30 (4.7)	3 (0.5)
Social / relationships					
Participation in social activities	7.4±18.2	532 (83.3)	79 (12.4)	22 (3.4)	6 (0.9)
Emotional health	9.2±18.9				
Emotional health		497 (77.8)	104 (16.3)	28 (4.4)	10 (1.6)
Feeling frustrated		509 (79.7)	103 (16.1)	20 (3.1)	7 (1.1)

\* Data are presented as No. (%) of participants

**Table 3. Knowledge on urinary incontinence**

Statement	Yes*	No*
Urinary incontinence is a disease (yes)	436 (68.2)	203 (31.8)
Urinary incontinence is a normal ageing process (no)	331 (51.8)	307 (48)
Old age is a cause of urinary incontinence (yes)	482 (75.4)	157 (24.6)
Childbirth is a cause of urinary incontinence (yes)	378 (59.2)	261 (40.8)
Drinking excessive water is a cause of urinary incontinence (no)	81 (12.7)	558 (87.3)

\* Data are presented as No. (%) of participants

results may be biased by the small proportion of women with severe UI or severe quality of life impairment.

In the present study, lack of awareness of treatment options for UI was a barrier to seeking help, consistent with a study that reported 30% to 63% of women unaware of the preventive strategies and treatment options for UI<sup>1</sup>, and studies that reported learning about available treatment being a predictor for seeking help<sup>11,20,21</sup>. In the present study, 18.6% of participants thought that there was no treatment

for UI; 29.7% did not know which specialty to consult; and 51.3% of participants and 27.4% of healthcare workers were not aware of the urogynaecology subspecialty. Although these observations did not correlate with the consultation rate, they reflect a need to improve public education on treatment options and preventive strategies for UI to encourage symptomatic women to seek medical help.

Women with different symptom severity face different barriers to help-seeking behaviour<sup>7</sup>. Women with

**Table 4. Barriers to help-seeking behaviour**

Barrier to help-seeking behaviour	% of participants with symptoms of urinary incontinence agreeing to the statement	Correlation with consultation rate, odds ratio (95% CI)	p Value
I do not understand the treatment options	36.6	1.90 (1.11-3.25)	0.019
The symptoms do not affect me	33.2	1.59 (1.08-2.34)	0.018
I do not want to take medication or have surgery	31.8	0.98 (0.60-1.59)	0.931
Urinary incontinence is a normal part of ageing	31.3	0.98 (0.68-1.39)	0.891
I do not know which doctor to consult	29.7	0.98 (0.61-1.58)	0.927
The doctors do not ask for symptoms of urinary incontinence	26.1	0.88 (0.53-1.45)	0.607
I was worried about being diagnosed with a serious condition	24.7	2.73 (1.7-4.3)	<0.001
I have more important diseases to deal with	23.9	0.65 (0.41-1.03)	0.066
I feel embarrassed to talk about urinary incontinence	20.8	1.30 (0.78-2.16)	0.311
There is no treatment for urinary incontinence	18.6	0.99 (0.59-1.65)	0.966
The doctors do not care about my symptoms	11.4	0.81 (0.43-1.53)	0.519

**Table 5. Multivariate model for variables associated with consultation rate**

Variable	Adjusted odds ratio (95% CI)	p Value
Age-group	0.82 (0.35-1.90)	0.639
Body mass index	1.08 (0.56-2.07)	0.829
Urogenital Distress Inventory Short Form score	0.78 (0.58-1.05)	0.105
Incontinence Impact Questionnaire Short Form score	1.03 (0.86-1.23)	0.770
Inadequate knowledge on treatment options	0.35 (0.18-0.68)	0.002
Symptoms not affecting the daily living	0.51 (0.27-0.96)	0.038
The fear of having a serious underlying condition	2.18 (1.17-4.04)	0.014

mild UI may not consider it a problem, and women with more severe UI may be hesitant to consult a doctor because of reluctance to take long-term medication or undergo surgery<sup>7</sup>. In the present study, the perception of UI as a relatively minor problem was a barrier to consultation, as most women had mild UI. 26.1% of participants did not seek help because they were not asked about the symptoms of UI, and 11.4% of participants thought that their doctors did not care about their symptoms of UI. Therefore, healthcare workers should take a more proactive role and ask for symptoms of UI and provide access to treatment for such women.

Participants' level of knowledge on UI was higher in the present study than in a local study in 2006<sup>5</sup>. More women regarded UI as a disease entity (68.2% vs 21.7%); fewer women agreed that UI is a normal ageing process (51.8% vs 60.6%) and that drinking excessive water causes urinary incontinence (12.7% vs 22.4%). In the present study, knowledge level on UI did not correlate with the consultation rate, consistent with a systematic review in 2018<sup>1</sup>. Help-seeking behaviour is a complex interaction

of disease factors (severity and type of UI), patient factors (perception of UI, degree of quality-of-life impairment, knowledge and attitude toward UI), and social factors (healthcare system, cultural influence, socioeconomic backgrounds). Therefore, improvement in knowledge alone is not sufficient to change the help-seeking behaviour.

One limitation of this study was the selection bias. Participants were recruited from two regional hospitals in Hong Kong; women with poorer access to healthcare resources were not included. Our sample was not representative of the general population and thus our findings may not be generalised to the general population. In addition, the five statements used to assess the knowledge of UI and perceived barriers to help-seeking were not validated, and the knowledge on available treatment options was not assessed. Further studies on this aspect and the quality of existing public education programmes are warranted.

The Hong Kong Continence Society and the Hong Kong Urogynaecology Association have provided education on UI by organising public seminars and online platforms

with introductory videos on common urogynaecological problems. We shall continue our efforts in promoting the preventive strategies and treatment options for UI, and we shall be more proactive in asking for symptoms of UI during consultation.

## Conclusion

There is a need to improve public education on treatment options and preventive strategies for UI to encourage symptomatic women to seek medical help. Clinicians should be more proactive in asking for symptoms

of UI during consultation.

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