Quality of life (QoL) and help-seeking in postmenopausal women with urinary incontinence (UI): A population based study

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ABSTRACT

Objective: UI is a common condition among women. UI adversely impacts upon QoL and participation in everyday activities. The aim of this study was to determine the relationship of QoL and help-seeking in postmenopausal women with UI.
Design: This cross-sectional correlation study took place from March to May 2012; the subjects were selected by multi stage sampling method from various zones of Rasht City (North of Iran). The data were collected using personal data form, Questionnaire for Urinary Incontinence Diagnose (QUID), Incontinence Severity Index (ISI) and Incontinence QoL questionnaire (I-QoL), data were analyzed by SPSS at the significant level of $P < 0.05$ and then were compared by parametric and non-parametric tests.
Result: Three hundred and thirteen menopause women aged 45–60 years (mean 52.9) were recruited in the study. Mean QoL score was 46.18 ± 19.91. Only 27.3% of subjects seek care for UI. There was no significant correlation between the QoL and help-seeking.
Conclusion: According to the findings although QoL was impaired in women with UI, their help-seeking was low. Most of them did not consider UI an important problem; health professionals should educate patients and aware patients of available treatments.

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1. Introduction

UI is the complaint of any involuntary leakage of urine (Abrams et al., 2002). UI is a common condition among women. The estimated incidence of UI among community dwelling adult women is 25–40% (O'Donnell, Lose, Sykes, Voss, & Hunskaar, 2004) with developed prevalence in postmenopausal women (Pace, Silvestri, Guala, & Vicentini, 2009). It is important to examine all the aspects of UI now because life expectancy is higher, and it is estimated that as the baby boomer generation ages, there is going to be an increased demand for improved QoL in the elderly population (Marzano, Davies, & Ansbacher, 2005). UI adversely impacts upon QoL and participation in everyday activities (Mishra, Croudance, Cardozo, & Kuh, 2009). UI can affect the social, psychological, domestic, occupational, physical, and sexual aspects of patients' lives (Lasserre et al., 2009; Mishra et al., 2009; Paick, Cho, Oh, Kim, & Ku, 2007). Additionally, middle-aged women are

influenced by the hormonal changes surrounding the menopause and it makes them susceptible for UI (Peeyananjarassri, Liabsue-trakul, Soonthornpun, Choobun, & Manopsilp, 2008). Several studies have indicated that many women with UI do not consult a doctor about their condition (Kang & Kim, 2009a; Kinchen et al., 2003; Rios, Cardoso, & Almeida, 2011). Although adequate treatment is available, few older people seem to take advantage of it (Teunissen, Weel, & Lagro-Janssen, 2005) as the issue may be embarrassing and stressful, women, especially in Iranian culture, rarely discuss the problem of UI with their health care providers (Ahmadi et al., 2010); delays in seeking help for UI can lead to a worsening of the incontinence and a reduction in QOL (Kang & Kim, 2009b). Some of the undesirable consequences of keeping the problem untold are: adverse effect on social life and intimate relationships, decreased self-esteem, and lower QoL; moreover, it can cause financial burden to the health system (Danforth et al., 2006). In a population-based study in Iran the prevalence of UI in postmenopausal women was 37.8% (Nojomi, Bibi Amin, & Bashiri Rad, 2008). In addition many of the middle-aged women in north of

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Iran have to undertake heavy works in farms involving bending and heavy lifting, this probably contributes to high rates of prolapse and UI; these women usually are too busy to seek treatment. Many studies appraise QoL and help-seeking in women with UI (Lasserre et al., 2009; O'Donnell et al., 2004; Rios et al., 2011), but since cultural and religious beliefs pervade every aspect of an individual's lifestyle and influence health behaviors (Holland & Hogg, 2001) regarding to Iranian Muslim women have special cultural condition that cleanliness is so important for praying, Therefore the aim of this study was to determine the effect of UI on QoL and help-seeking among Iranian women that have different religious culture.

2. Methods

2.1. Design

This cross-sectional correlation study took place during a three-month period from March to May 2012; the calculated sample size was 313 with the confidence interval of 95%. Subjects were selected by multi stage sampling method. Since the city has three zones, at first stage, one health center was chosen randomly from each zone. In second stage women's addresses and phone numbers were obtained from their medical archived documents. After telephone arrangement, the research team went to their addresses and fills the questionnaire by interview. Only 11 women refused to participate in the study, five because time trouble, four because they did not like to speak about their problem and two because they were under treatment for UTI.

2.2. Subjects

Postmenopausal women between 45 and 60 years were recruited. Inclusion criteria were: being a married female, complaining of UI in recent six months, no restricted mobility. Women who reported current urinary tract infection was excluded from the study. For ethical considerations, the research protocol was approved by the Medical Research Ethics Committee of Tehran University of Medical Sciences. Confidentially was granted to subjects and written consent was obtained from all of them prior to participate in the study.

2.3. Measures

Four questionnaires were used; the first questionnaire consisted of demographic characteristics, obstetrics, medical and surgical history.

The second questionnaire was I-QOL questionnaire developed by (Patrick et al., 1999;Rios et al., 2011), validated Persian version of I-QoL was used in this study (Nojomi, Baharvand, Moradi, & Patrick, 2009). I-QOL contains 22 items that each of them is a five-point Likert-type response scale yielding a total score and three subscale scores, including: limiting behaviors, psychosocial impacts, and social isolation. Higher I-QOL scores indicate better levels of QoL (Nojomi et al., 2009).

The third questionnaire was the QUID, a 6-item UI symptom questionnaire items 1, 2, and 3 make up the QUID stress scale, and items 4, 5, and 6 the QUID urge scale (stress scores > 4 for SUI and urge scores > 6 for UUI), and having both of them indicated mixed UI (Bradley et al., 2005).

The last questionnaire was the ISI. It consists of two questions that assess the severity of UI, one about the frequency of UI and the other is about amount of urine leakage. The score limits of the ISI are 0–12. ISI scores were recoded into: none (0), mild (1–2), moderate (3–6), severe (7–9), very severe (10–12) levels

(Hawthorne, 2006; Murphy et al., 2006); points for frequency of UI multiplied by points for amount of leakage make up severity index.

Also an additional question was asked about the effect of UI on their prayer and religious rights. The last question was about whether they sought treatment or didn't and also, they answered an open-ended question about the reason of seeking or not seeking treatment.

2.4. Statistical analysis

The data were analyzed using SPSS. To describe demographics, UI characteristics, medical and obstetrics history, help-seeking, I-QoL total and subscale scores descriptive statistics were used. ANOVA test was used to compare I-QoL score between different groups of UI type, severity and duration. To compare I-QoL mean scores between two groups of women who sought help or did not, X_2 test was applied. Pearson and Spearmen tests were used to evaluate the relationship between demographic variables and help-seeking. A *P*-value less than 0.05 was considered to be statistically significant.

3. Results

A total of 313 postmenopausal women with a mean age of 52.9 ± 3.68 years (range: 45–60 years) were successfully enrolled in this study, the mean menopause age was 48.8 ± 2.26. Mean number of pregnancies and births were 4.5 ± 2.1 and 3.8 ± 1.7 respectively. Their educational level in most of them was elementary school (55%). Most of them were unemployed (68.1%) and others were employed or work in farms. Of the subjects, 34.7% had low, 49.5% were moderate, and 13.1% had high income. Most of them (82.4%) had medical insurance. 21.1% of subjects reported a chronic illness including diabetes mellitus and hypertension. Most of them had not any gynecologic surgery history (88.8%). The most woman (48.6%) reported mixed UI, followed by urge UI (27.2%) and stress UI (24.3%). With regard to the severity of UI, 46.6% of the women had mild, 37.1% had moderate, and 16.3% had severe incontinence. The women's total scores from the 22-item I-QoL were 46.18 ± 19.91 and for domains of limiting behaviors, psychosocial impacts, social isolation were 37.47, 55 and 44.23 respectively. In this study, 27.2% of subjects sought medical help (Table 1). There was a significant difference in QoL scores between three groups of UI type ($P < 0.001$). Gabriel test showed that mixed UI is the reason for this difference. Women with mixed UI had the lowest QoL score (Table 2). QoL score had a significant difference between three groups of UI severity ($P < 0.001$), Post hoc analysis revealed that mild and severe groups and also moderate and severe groups had a significant difference in all QoL dominos, but between mild and moderate groups there was a significant difference just between limiting behavior domain ($P = 0.01$). Women with severe UI had the lowest QoL score. QoL score had a significant difference between three groups of UI duration ($P = 0.026$), post hoc test showed that only in limiting behavior domain first group had a significant difference with second group ($P = 0.003$) and third group ($P < 0.001$) (Table 3). There was no significant correlation between QoL scores and seeking treatment in subjects (Table 4). QoL scores had a significant correlation with: age ($P = 0.023$), education ($P < 0.001$), parity ($P < 0.001$), economic status ($P < 0.001$), medical insurance ($P = 0.027$), co-morbidity ($P = 0.037$), UI severity ($P < 0.001$), UI duration ($P = 0.037$), and praying trouble ($P < 0.001$) (Table 5). Also we found that there was a significant correlation between, economic status ($P = 0.045$), medical insurance status ($P = 0.048$), co-morbidity (0.002) duration ($P = 0.015$) and severity ($P = 0.002$) of UI, with help-seeking (Table 5).

Table 1
The general state for this study population.

Age	52.9 ± 3.68
Menopause age	48.8 ± 2.26
Pregnancy	4.5 ± 2.1
Parity	3.8 ± 1.7
Education level	
Elementary school	172 (55%)
High school	125 (39.9%)
College	16 (5.1%)
Occupation	
Employed	67 (21.4%)
Unemployed	213 (68.1%)
Farmer	33 (10.5%)
Income	
Low	117 (37.4%)
Moderate	155 (49.5%)
High	41 (13.3%)
Insurance	
No	258 (82%)
Yes	55 (17.6%)
Co-morbid disease	
No	278 (88.8%)
Yes	35 (11.2%)
Surgery history	
No surgery history	278 (88.8%)
Hysterectomy	16 (5.1%)
Anterior posterior repair	19 (6.1%)
Type of UI	
Stress (score ≥4)	76 (24.3%)
Urge (score ≥6)	85 (27.2)
Mixed (both of above)	152 (48.6)
UI severity[a]	
Slight (1–2)	146 (46.6%)
Moderate (3–6)	116 (37.1%)
Severe (8–9)	51 (16.3%)
UI duration	
Six month to 2 years	109 (34.9%)
3–5 years	100 (31.9%)
≥6 years	104 (33.2%)
Total QoL score	46.18 ± 19.91
Limiting behaviors	37.47 ± 20.99
Psychosocial impacts	55 ± 22.31
Social isolation	44.23 ± 22.61
Help-seeking	
No	228 (72.8%)
Yes	85 (27.2%)

[a] There was not any subject with very severe UI.

4. Discussion

The results showed that UI incidence increased through age 50 years, these findings is similar to the American reports (Townsend et al., 2007) and a recent study on women with UI in Iran (Nojomi et al., 2008). The mean menopause age was 48.8 ± 2.26, in a survey in Iran, the mean and median age of menopause was reported 47.8 (S.D. = 4) and 51 years, respectively (Mohammad, Sadat Hashemi, & Farahani, 2004). Although many studies found that stress UI have the most prevalence in women at all ages (Lasserre et al., 2009; Nojomi et al., 2009; Townsend et al., 2007), most of the subjects in present study had mixed UI; this difference could be due to the focus of this study on postmenopausal women, and mixed UI incidence increases with age (Minassian, Stewart, & Wood, 2008). I-QoL was used because it has enough sensitivity to evaluate special aspects of QoL among these sufferer (Nojomi et al., 2009). The mean score of I-QoL and its sub scales: limiting behaviors, psychosocial impacts, social isolation were 46.18 ± 19.91, 37.47, 55 and 44.23 respectively; these scores were lower than QoL scores in some researches in other countries (Liebergall-Wischnitzer et al., 2011; Ozkan, Ogce, & Cakir, 2011; Paick et al., 2007). The lowest score of QoL was for limiting behavior domain, this result is similar to Ozkan et al. (2011). It seems that UI has a much more devastating effect on the quality of life of Iranian Muslim women. Urine leakage while under ablution (Wadu) necessitates carrying out the ritual again as cleanliness during prayers is required. Prayers (Namaz), performed five times a day at different intervals, require a Muslim to stand, bend and sit while reciting the verses of the Quran (Sange, Thomas, Lyons, & Hill, 2008). These actions can cause a leakage for a person who is incontinent. Also because of urgency, they had to stop their prayer (Namaz); as Sange et al. (2008) pointed out, this process of leaking urine and cleansing can have a negative effect on Muslim women's QoL, as it brings with it associations of guilt and punishment. Of the subjects more than 60% declared a high effect of UI on their prayer (Namaz). Prayer affection had the strongest correlation with QoL in subjects ($r = -0.554$) (Table 5). Result showed that Women with mixed UI and severe UI had the lowest QoL score, these results were similar to Ozkan et al. (2011) and Paick et al. (2007). Subjects with longer duration of UI had lower QoL total scores and in limiting behavior domain (Table 3). It seems that postmenopausal women try to match themselves with the condition, and do more limiting behaviors to control UI.

Only 27.7% of subjects sought medical help from a health care provider. Major reasons for help-seeking were being bothered by UI (40%) followed by prayer affection (30%) and worry about UI was sign of a serious disease (15.4%). Most of the subjects (72.8%) never sought any medical help. Their Major reasons for not help-seeking were neglect UI (27.6%) followed by embarrassment (16.6%), assuming UI as a normal part of aging (16.3%) and economic problems (16.3%). UI affected post menopause women's QoL but help-seeking was low and there was not a significant correlation between QoL and help-seeking. It seems that many of subjects neglect UI and accepted it as a part of aging; therefore despite the effect on QoL they had not sought medical treatment, they are not aware of the importance of consulting a health care provider for help.

Further statistical tests revealed that most of women with severe UI seek help because were being bothered by UI (59%) and most of those with severe UI who did not seek help said that they had money problems for going to the doctor (32%) or they were busy with other problems (25%).

Some studies found a relationship between QoL and help-seeking (Hägglund, Walker-Engström, Larsson, & Leppert, 2001; Yu, Wong, Chen, & Chie, 2003); More studies are needed to investigate the relationship between QoL and help-seeking in women. Also a qualitative study is needed to explore help-seeking in Iranian women.

Table 2
Distribution of QoL scores according to the women's type of UI.

Type of UI				
I-QoL	Stress UI	Urge UI	Mixed UI	P-value
Limiting behaviors	52.59 (20.19)	38.14 (17.96)	29.53 (18.70)	<0.001
Psychosocial impacts	63.30 (18.97)	58.16 (21.46)	49.07 (22.76)	<0.001
Social isolation	54.42 (19.45)	44.94 (19.73)	38.73 (23.85)	<0.001
Total I-QoL	57.39 (17.55)	47.88 (17.46)	39.62 (19.71)	<0.001

ANOVA variance analysis. Mean (SD).

Table 3
Distribution of QoL scores according to the women's severity and duration of UI.

I-QoL	Severity of UI				Duration of UI			
	Mild	Moderate	Severe	P-value	Six month to 2 years	3–5 years	≥6 years	P-value
Limiting behaviors	43.78 (19.47)	37.50 (19.10)	19.65 (19.05)	<0.001	44.70 (23.19)	35.35 (20.08)	31.94 (17.11)	<0.001
Psychosocial impacts	60.88 (18.97)	58.25 (19.10)	31.28 (22.23)	<0.001	57.18 (22.64)	52.37 (23.22)	55.23 (20.99)	0.296
Social isolation	49.56 (18.87)	45.83 (23.36)	25.68 (21.27)	<0.001	47.00 (22.68)	41.56 (20.82)	43.88 (24.2)	0.217
Total I-QoL	52.09 (16.95)	47.88 (17.50)	25.78 (19.65)	<0.001	50.33 (21.23)	43.72 (20.05)	44.18 (17.72)	0.026

ANOVA variance analysis. Mean (SD).

Table 4
Distribution of QoL scores according to help-seeking.

Help-seeking	Yes (n = 85)	No (n = 228)	P-value
I-QoL			
Limiting behaviors	36.11 ± 20.72	37.98 ± 21.11	0.56
Psychosocial impacts	43.67 ± 20.95	44.43 ± 23.24	0.53
Social isolation	51.16 ± 22.39	56.43 ± 22.16	0.65
Total I-QoL	43.98 ± 19.61	46.99 ± 20	0.63

Independent *t*-test.

Table 5
Correlation between demographics and UI characteristic with QoL and help-seeking.

Variable	I-QoL	Help-seeking
Age	−0.128[*]	−0.025
Parity	−0.317[**]	0.026
Education	0.336[**]	−0.032
Economic status	0.333[**]	0.114[*]
Having medical insurance	0.125[*]	0.112[*]
Comorbidity	−0.115[*]	0.177[**]
UI severity	−0.415[**]	−0.179[**]
UI duration	−0.118[*]	−0.138[*]
Pray affection	−0.554[**]	−0.019

[*] Correlation is significant at the 0.05 level (2-sided).
[**] Correlation is significant at the 0.01 level (2-sided).

5. Conclusion

In conclusion, there was not a significant correlation between QoL and help-seeking in subjects. Despite low I-QoL scores, most of the subjects never consult a doctor about their UI and those who sought treatment still complained of UI. Patients and the health care team in Iran tend to neglect UI, accepting it as part of the aging process, and sometimes the problem is diagnosed only when symptoms have already affected the QoL of these women. Although UI adversely affected postmenopausal women's QoL, praying and religious rights in Iran, their treatment seeking was low. Many of them declared that they had neglected UI; this issue shows that women had a misconception about UI and the health care team should educate and aware them of prevention of UI and available treatments.

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