



URINARY INCONTINENCE IN WOMEN: PRIMARY HEALTHCARE PHYSICIANS' KNOWLEDGE AND PRACTICE IN THE EASTERN PROVINCE, SAUDI ARABIA

Medicine

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ABSTRACT

Urinary incontinence (UI) in women is an awkward, often undiscussed subject, associated with anxiety, depression, social isolation and affecting quality of life. This study aimed to assess primary healthcare physicians' knowledge and practice in Saudi Arabia's Eastern Province. This cross-sectional study was conducted in primary healthcare centers of three main sectors (Dammam, Khobar and Qatif) in the Eastern Province by a self-administered survey. The sample size was 120 physicians who completed the questionnaire. Most primary healthcare physicians clearly understood UI, one-third of them routinely asked patients about UI, and about 55% of them commonly encountered UI in their practice. Lack of screening tools, unfamiliarity with available treatment algorithms, and lack of time were the most common barriers. Almost all primary care providers (95.8%) referred UI patients to secondary care. Sixty percent physicians had good overall knowledge, and 52.5% had good attitudes and practices about UI. There was no statistically significant relationship except for job level in relation to knowledge and practice scores. Improved education and basic screening programs and treatment in primary care centers would improve UI detection and management at the primary care level.

KEYWORDS

urinary incontinence, primary care physician, females, knowledge and practice

INTRODUCTION

Urinary incontinence (UI) in women is often an awkward and undiscussed subject (Badejoko, Bola-Oyebamiji, Awowole, Salako, & Ogunniyi, 2015). It is defined as uncontrolled leakage of urine. There are many types of UI including stress, urge, mixed and others (Austin et al., 2014; Haylen et al., 2010).

In a systematic review the prevalence of UI in women ranged from 1.6-30.3% (Milsom et al., 2014). The prevalence of UI in Australia was 12.8-46.0% (Botlero, Urquhart, Davis, & Bell, 2008) and in UAE, Qatar and Saudi Arabia it was 20.3%, 20.7%, and 29% respectively (Altaweel & Alharbi, 2012; Ghafouri et al., 2014; Rizk, Shaheen, Thomas, Dunn, & Hassan, 1999).

Multiple risk factors linked to UI were age, ethnicity, being overweight, parity, and diabetes (Altaweel & Alharbi, 2012; Ghandour et al., 2017; Townsend, Curhan, Resnick, & Grodstein, 2010). Most women with UI sought information online or from close friends (Bouwina et al., 2013; Hoon Choi, Jae Young Park, Jeong Kyun Yeo, Mi Mi Oh, Du Geon Moon, Jeong Gu Lee, 2015).

UI was associated with anxiety, depression and social isolation (Coyne et al., 2008, 2009; Yip & Cardozo, 2007). Despite affecting quality of life, women do not discuss UI with their physicians. This is usually attributed to shame and embarrassment, underestimation of the issue, expecting a spontaneous resolution and belief that it is a normal aging process or a consequence of giving birth (Andersson, Johansson, Nilsson, & Sahlberg-Blom, 2009; Bouwina et al., 2013; El-Azab & Shaaban, 2010; Elbiss, Osman, & Hammad, 2013; Saleh, Bener, Khenyab, Al-mansori, & Muraikhi, 2005; Visser et al., 2012).

Women with significant risk factors for having UI were not warned or even screened by their physicians (Bouwina et al., 2013). An evaluation of patients' satisfaction regarding their physicians' management of UI, found it to be suboptimal (Mazloomdoost et al., 2013).

Primary healthcare providers should be the first gate to the healthcare system, able to screen, diagnose and manage the most common health problems in the community. Therefore, screening and managing UI should be well comprehended to improve the patients' quality of life.

Studies from western countries show that physicians had variable knowledge and most feel uncomfortable in diagnosing and managing UI (Grealish & O'Dowd, 1998; In, 2004; Jirschele, Ross, Goldberg, &

Botros, 2015; McFall, Yerkes, Bernard, & LeRud, 3AD; Nguyen, Hunter, & Wagg, 2013; Swanson, Skelly, Hutchison, & Kaczorowski, 2002). As far as we know, no similar studies were conducted in our region.

In this study, we assess the awareness of primary healthcare physicians about UI. The study results could highlight the strengths or defects of our primary healthcare physicians and be the first step towards constructing guidelines or a screening program.

METHODS

This was a cross-sectional study conducted at the primary healthcare centers of the three main sectors Dammam, Khobar and Qatif in the Eastern Province, Saudi Arabia. Primary healthcare physicians were the study subjects. A pilot study validated the questionnaire reconstructed from a previous study after taking their permission (Jirschele et al., 2015). The questionnaire included demographic, knowledge and attitude questions. A 5 Likert-type scale was used for majority of knowledge and attitude questions.

All encountered physicians from March-June 2019 were asked to participate in the study by completing a self-administered questionnaire. Participation was voluntary and willingness to complete the questionnaire was considered as implied consent.

Data were analyzed using IBM SPSS v. 24. All variables were coded before entry. Frequency distribution of demographic data, knowledge assessment, and attitudes was constructed and expressed as numbers and percentages. Mean score for knowledge and attitude questions were calculated. Mean score was used to classify participants into good or poor knowledge or attitude. The chi-square test was used to measure relationships between dependent and independent variables. P-values <0.05 were considered statistically significant.

The research proposal was approved by the MOH Institutional Review Board.

RESULTS

A total of 120 physicians completed the questionnaire from 327 approached physicians, providing a response rate of 36.7%. Table 1 summarizes the demographic characteristics of the 120 participants whose completed questionnaires were analyzed. There were 87 (72.5%) female and 33 (27.5%) male physicians. Most were Saudi nationals 90.8% (n=109) with 83.3% (n=100) physicians aged ≤40 years. Half of the physicians (50%) were general practitioners, 12.5%

(n=15) were specialists and 7.5% (n=9) consultants. The majority of participants (n=91, 75.8%) had ≤10 years in practice.

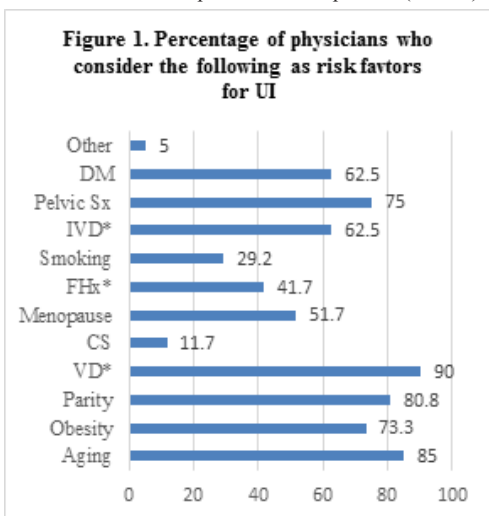
Table 1. Demographic Characteristics

Demographic Characteristics		N (120)	%
Gender	Female	87	72.5
	Male	33	27.5
Nationality	Saudis	109	90.8
	Non-Saudis	11	9.2
Age in Years	25-30	28	23.3
	31-35	53	44.2
	36-40	19	15.8
	41-45	12	10.0
	46-50	3	2.5
	51-55	3	2.5
Specialty	Family medicine	53	44.2
	Pediatrics	3	2.5
	Internal medicine	3	2.5
	General practitioner	60	50.0
	Other	1	.8
Job levels	GP*	61	50.8
	R1**	4	3.3
	R2**	6	5.0
	R3**	4	3.3
	R4**	21	17.5
	Specialist	15	12.5
Years of Practice	Consultant	9	7.5
	1-5	51	42.5
	5-10	40	33.3
	11-15	18	15
	16-20	7	5.8
≥21	4	3.3	

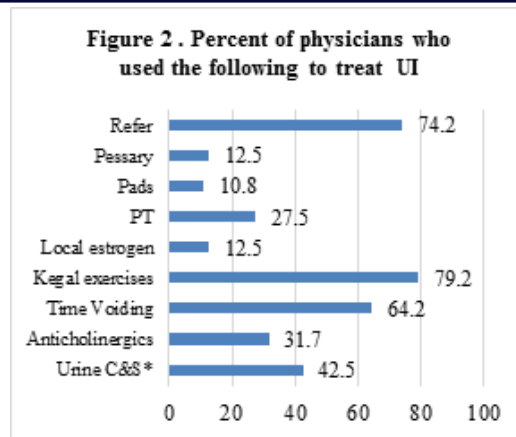
* General Practitioner with no training after medical school
** Training resident level

Most of primary healthcare physicians (90.9%) stated that they clearly understood UI. Only 31.7% of physicians routinely asked patients about UI. More than half (63.3%) acknowledged the

difficulty in managing UI, 53.3% agreed that it was time-consuming to manage UI given all health conditions they need to review. Some physicians (27.5%) agreed that initiating discussion about UI is the patients' responsibility while 58.3% disagreed and 73.4% agreed that it is the physician's responsibility to bring up the subject while 15.8% disagreed. The majority (74.1%) agreed that patients are embarrassed to talk about UI and 75% and 90.8% agreed that it interferes with sexual and social activities, respectively. Fifty-five percent physicians reported that UI is a common problem at their practice (Table 2).



* VD: Vaginal delivery, IVD: instrumental vaginal delivery, FHx: Family history



* C&S: Culture and sensitivity, PT: Physical therapy

Table 2. Participants' knowledge, attitude and practice

	Strongly agree N (%)	Agree N (%)	No opinion N (%)	Disagree N (%)	Strongly Disagree N (%)
I clearly understand UI	35 (29.2)	74 (61.7)	6 (5)	4 (3.3)	1 (0.8)
I routinely ask about UI	9 (7.5)	29 (24.2)	17 (14.2)	59 (49.2)	6 (5)
Management of UI is difficult	16 (13.3)	60 (50)	21 (17.5)	20 (16.7)	3 (2.5)
Too much time to manage UI given all other conditions I need to review	15 (12.5)	49 (40.8)	18 (15)	35 (29.2)	3 (2.5)
It is the patients' responsibility to bring up UI	6 (5)	27 (22.5)	17 (14.2)	58 (48.3)	12 (10)
It is the physician's responsibility to bring up UI	20 (16.7)	68 (56.7)	13 (10.8)	18 (15)	1 (0.8)
UI is common in my practice	14 (11.7)	52 (43.3)	17 (14.2)	34 (28.3)	3 (2.5)
UI is a normal aging process	9 (13.3)	50 (41.7)	16 (13.3)	38 (31.7)	7 (5.8)
Patients are embarrassed to talk about UI	34 (28.3)	55 (45.8)	15 (12.5)	14 (11.7)	2 (1.7)
UI unlikely to interfere with sexual activity	1 (0.8)	8 (6.7)	21 (17.5)	71 (59.2)	19 (15.8)
UI unlikely to interfere with social activity	2 (1.7)	4 (3.3)	5 (4.2)	67 (55.8)	42 (35)
Little can be done for UI	3 (2.5)	15 (12.5)	20 (16.7)	65 (54.2)	17 (14.2)

Overall, 91.7% of respondents would like to diagnose UI and 95.8% agreed that if there was a screening tool available they would definitely use it. The most commonly encountered barriers by physicians, to diagnose and treat UI are the lack of screening tool, unfamiliarity with available treatments and time paucity due to busy clinics. Most

physicians identified vaginal delivery, aging, parity, pelvic surgery and obesity as risk factors for UI (Figure 1). When asked about treatment options, 79.2% advised Kegel exercises, 64.2% used behavioral time voiding, 31.7% used anticholinergics as a treatment option (Figure 2). However, most primary care providers (95.8%) refer UI patients to secondary care, mostly to the urology department followed by urogynecology and gynecology departments. In this study, 60% physicians had good overall knowledge about UI and 52.5% had good attitudes and practices regarding UI. There were no significant correlations between physicians' demographic characteristics and knowledge and practices about UI, except with job levels (p-value 0.024) in relation to knowledge and practice score (p-value 0.003). There were also no statistically significant associations between knowledge and practice.

DISCUSSION

To the best of our knowledge, this is the first study in the region and one of the few in the world about primary healthcare providers' knowledge and practices concerning UI. The results showed that 55% of physicians identified UI as a common problem in their practice; however, 95.8% of physicians referred their patients to secondary care.

Despite their understanding of UI, most of primary care physicians do not ask their patients about incontinence. Therefore, it should be incorporated as a routine question in medical history-taking, at least in the systemic review, especially in patients with multiple risk factors for UI. Physicians in our study sample identified common risk factors similar to those in previous studies (Nguyen et al., 2013).

The most common identified barriers were unfamiliarity and unavailability of treatment and screening algorithms, findings similar to those of Jirschele et al, in addition to lack of time in the clinic, which was unaddressed by Jirschele. This points to a deficiency in education and screening programs, similarities seen in our region (Jirschele et al., 2015). Recent reviews could help us improve UI patient care (2017 JAMA review of UI in women and 2015 review of the guidelines by Syan) (Lukacz, Santiago-Lastra, Albo, & Brubaker, 2017; Syan & Brucker, 2016).

We should provide more education regarding the subject and provide basic treatment in primary care centers; especially given the statistically significant association with job levels, implying that increased education improves the physicians' knowledge and practice. Even unsupervised home Kegel exercises were effective in improving UI especially stress UI, therefore, basic patient education at primary care level can alleviate patient suffering (Cavkaytar, Kokanali, Topcu, Aksakal, & Doğanay, 2015).

One of the biggest limitations of this study was the poor response rate, which led to a lower-than-expected sample size. Furthermore, it can lead to response and non-response bias. Although our questionnaire was adapted from a previous study, edited by the study team and validated by a pilot study, some of the respondents commented on the construction of the questions and needed more clarifications.

In conclusion, UI is a common problem in the community that needs further attention as it can cause depression, social isolation and decrease quality of life. Introducing a screening program, treatment algorithm and education for busy primary care physicians could improve UI management at primary care level and begin a discussion about UI, an awkward, undiscussed problem that patients are usually embarrassed about.

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