Prevalence of urinary incontinence in Al Ahsa region Saudi Arabia

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ABSTRACT

Background: The International Continence Society and the International Urogynaecology Association define urinary incontinence (UI) as any involuntary urine leakage [1]. One of the most commonly reported symptoms of the lower urinary tract in women [2]. It is estimated that UI prevalence in women ranges from 13% to 46% [3,4]. Urinary stress incontinence accounts for up to half of all cases; UI prevalence is typically considered 20% to 50%, with the highest in the childbearing age group (up to 40%). Then, the prevalence increases to 50% in the elderly. In 2008, a local study conducted at a primary care centre in Jeddah in Saudi Arabia found that the UI prevalence was 41.4% [5], and studies that shown that incontinence increases with age [6].

Many factors are associated with UI, including unmodifiable factors like age, menopause, gender, history of vaginal delivery and modifiable factors like smoking, alcohol intake, toileting behaviours [7], constipation, and obesity. Also, age, levels of schooling, parity and BMI are considered as risk factors. Age is a significant risk factor, especially for women with vaginal delivery, according to Rogers [8]. Stress incontinence is more common in women as a result of destroyed pelvic muscles. In the perinatal period, pelvic floor muscle strengthening is important for preventing postpartum UI [9]. In improving the functions of this muscle group, only 6 weeks of training can be beneficial [10]. Davenport et al. [9] recorded that pelvic floor muscle training combined

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A quantitative cross-sectional study was carried out in the Al Ahsa region of Saudi Arabia in October 2020. Approximately 396 patients responded and participated in our research. Data collection included female patients aged above 18 years old and exclusion criteria, females aged less than 18 years old, and those who refused to participate by using a questionnaire in Arabic language and distributed randomly among females online.

The informed consent of the questionnaire is taken. The questionnaire is divided into three parts: the first part determines if the patient had urine incontinence. Second part: questions to determine the type of urine incontinence. The third part, risk factors (age, work, and number of pregnancy). After data were collected, it was modified, coded, and entered into statistical software IBM Statistical Package for the Social Sciences version 22. All statistical analysis was done using two-tailed tests. p-value less than 0.05 was considered to be statistically significant. Descriptive analysis based on the frequency and per cent distribution was done for all variables, including demographic data, urine incontinence and related risk factors. Cross tabulation was used to test for the distribution of UI use according to female’s bio-demographic data, risk factors, and obstetric history. Pearson chi-square test was used to test for relations significance.

Results

The study included 396 females; 98 (24.7%) females had urine incontinence. Females age ranged from 18 to 65 years old with a mean age of 34.6-11.9 years. The exact 85.4% of the females were married, and 42.9% were working. University education was reported among 70.5% of the females, and 42.7% were overweight or obese. The study included 396 females; 98 (24.7%) females had urine incontinence. Females ages ranged from 18 to 65 years old with a mean age of 34.6-11.9 years. Exact 85.4% of the females were married, and 42.9% were working. University education was reported among 70.5% of the females, and 42.7% were overweight or obese.

Increased frequency of urination was moderate to too much among 55.1% of the females, and 43.9% of the females with UI complained of urgency. Also, 56.2% of the males with UI had moderate to severe stress incontinence, while 21.4% complained of difficulty completely evacuating their bladder. Low abdominal pain was reported among 40.8% of the females (16.3% moderate and 5.1% frequent). UI had a moderate effect on daily activities among 29.6% females and too much effect among 6.1%. UI was minimal among 88.8% of the sampled females. Illustrates distribution of urine incontinence among study females by their charactereritics. UI was reported among 40% of females aged 50-65 years old compared to 19.5% of those aged 18-30 years with recorded statistical significance (p = 0.045). Regarding jobs, UI was reported among 25.8% of females with no work compared to 25.9% of working females (p = 0.384). Also, 26% of married females had UI compared to 16.2% of the single group (p = 0.348). Considering educational level, UI was reported among 46.2% of females with educational level below secondary education compared to 24% of those who were university graduated (p = 0.027).

Besides, 38.1% of obese females had UI compared to 17.5% of those at normal weight ranges (p = 0.001).

Urine incontinence among study females by their obstetric history. The exact 15.2% of the females were nulligravida, and 8.6% were nulliparous. Caesarean section was reported among 21.9% of the females. Also, 47.9% of the females had a history of abortion. Normal vaginal delivery (NVD) was reported among 82.7% of the females, and 46.6% undergone episiotomy at last delivery. UI was reported among 24.6% of those who had five or more pregnancies compare to 11.7% of nulligravia females with statistical significance (p = 0.049). Also, 36.8% of females with 7-9 deliveries had UI compared to 13.8% of nulliparous females (p = 0.045). Exact of 41.7% of females who had assisted delivery had UI compared to 26.8% of those who had a NVD (p = 0.001). Also, 29.2% of females with prolonged last delivery had UI compared to 21.1% (p = 0.223). Risk factors of urine incontinence among study females. The exact 34.2% of females with Diabetes mellitus (DM) had UI compared to 23.7% of non-diabetic females with no statistical significance (p = 0.155). UI was reported among 34.1% of hypertensive females compared to 23.7% of others (p = 0.141). The exact 50% of asthmatic females had UI compared to 23.4% of normal females with statistical significance (p = 0.007). Also, 32.7% of females with recurrent Urinary tract infection (UTI) or genital infections had UI compared to 21.7% of those without (p = 0.022). Chronic cough was significantly associated with a higher level of UI than others with no cough (40.5% vs. 22.9%, respectively, p = 0.012). Also, 38.5% of the females with chronic constipation had UI compared to 22.1% of the other group (p = 0.005).

Table 1 shows medical consultation among females with UI. The exact 19.4% of the females with UI seek medical consultation. Drugs were advised for 55.6% of them, while 33.3% were asked to do Kegel exercise, and only two were advised with surgery. Among those who did not ask for medical consultation, thinking that UI is a common problem among many females was the most reported cause for medical consultation among females with UI.
(35.4%), followed by their perception of spontaneous improvement (31.6%), and feel embarrassed (25.3%).

Discussion

The current study aimed to assess the prevalence and pattern of urine incontinence among females in the Al Ahsa region, Saudi Arabia. Also, the study aimed to assess predictors of estimated urine incontinence. Besides knowing the prevalence of urine incontinence, it is also vital to know its risk factors and how many patients with incontinence will seek treatment [10,11]. Incontinence differs regarding severity from several drops to complete bladder emptying. UI may be sporadically, daily, or even many times a day [12]. It may be predictable or unpredictable, which is named urge incontinence [13]. The current study revealed that nearly one out of four females had UI, which was minimal among the majority of females (88.8%). The most-reported features for UI among sampled females were stress incontinence, increased frequency, and urgency. Daily life was affected among 76.5% of the females with UI, and nearly one-third of the females had lower abdominal pain. The current study estimated prevalence of UI was higher than that was reported by Sandvik [14]. They conducted a review on the prevalence of incontinence in the general population, including studies among females of different ages and a range of reasons for incontinence. The review revealed that the prevalence was low early in life years, with the highest peak around menopause, which then increases gradually around the ages of 60 and 80 years. The estimated prevalence was 10% in 15-19-year-olds and 18% in 20-24-year-olds, which is higher if one considers the number of young women seeking incontinence treatment. Sensoy et al. [15] assessed a higher prevalence of UI among women. The authors reported that the prevalence of UI was 44.6%. 31% of the women had stress incontinence, 47.4% urge, and 33.1% mixed type. UI effect on the quality of life was minimal, and only 63.9% were admitted to a health center, while 64.7% of the women did not ask for medical help. Generally, many studies assessed a wide range of UI among women. The prevalence rates ranged from 10%-51%, the consequent rates in stress, urge, and mixed type UI were specified as 22.9%-57%, 2.8%-23% and 12.4%-51.4%, respectively [16-19]. The high variability in the estimated prevalence of UI may be attributed to variation in the ages, and the variable definition for UI and the differences in women seek medical consultation and help [16,20]. Regionally, UI was estimated in many countries, including the United Arab Emirates, Qatar, and Kuwait, with the detected prevalence of 20.3%, 20.6%, and 49.3%, respectively [21-23].

As for determinants of UI, the current study revealed that UI was significantly higher among old aged females (50 years or more), which is mostly associated with many factors, including weak pelvic muscles, recurrent pregnancies and associated chronic diseases such as diabetes or renal disorders. Also, low educational levels and obesity were associated with higher rates of UI. Also, high gravidity, multiparity were significantly associated with complaining of UI. Besides having chronic health problems such as asthma, recurrent UTI, stress cough, and chronic constipation. All these findings are similar to many studies which assessed risk factors of UI and reported that old age, female gender, low education, obesity, multiparity, history of abortion, age at first delivery, hysterectomy, menopause, recurrent UTIs, chronic constipation, chronic cough, DM and hypertension are the most identified risk factors [16-18,24-26]. The current study also revealed that only one out of five women with UI went for medical consultation. As reported previously, this low portion may be due to a minimal degree of UI, which did not alter their daily livres fear of stigma. The most reported cases were females concept that UI is common and affects many females and will improve spontaneously. Feel embarrassed was reported by one-quarter of the females. That was consistent with
many studies, which revealed that, on average, about two-thirds of women with UI did not admit to any medical center, and 64.7% did not receive any medical help. The most-reported causes for no seeking for medical consultation included cultural and ethnic varieties, seeing UI as a normal component of the ageing process, lack of confidence in medical treatment, being shamed, unaware of the present treatment, difficulty and fear in consulting health professionals and relatively high cost of diagnosis, treatment and consultancy [27,28].

Conclusion

Based on this study findings, UI is a common condition among Saudi women in the eastern region of Al-Ahsa. The most-reported features for UI among sampled females were stress incontinence. Age, BMI, having been married or employed, cough, constipation and vaginal or assisted vaginal delivery during the previous birth were significant risk factors for UI in Al Ahsa women. Despite its negative effects, leading to misunderstanding and regarding UI, only a limited percentage of participants obtained proper medical advice for the disease. Future longitudinal studies utilizing objective assessment tools are needed to confirm the current findings.

List of Abbreviations

DM Diabetes mellitus
UI Urinary incontinence
UTI Urinary tract infection
SPSS Statistical Program for the Social Sciences

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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Consent to participate

Not applicable.

Ethical approval

The ethics committee at Maternity approved the present study and Children’s Hospital in Al-Ahsa approval NO20-669E, dated 16/6/2020.

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