Overview of the Social Impact Of Urinary Incontinence with A Focus on Turkish Women

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Urine incontinence (UI) is a condition marked by the involuntary loss of urine. Called the “silent epidemic,” UI is not a life-threatening condition, but it is a worldwide problem, affecting approximately 250 million adults in the world population (Milsom, 2009). In studies conducted in diverse countries and among different populations, it has been discovered that with percentages varying between 5% to 69%, lower urinary tract symptoms (LUTS) have a high prevalence in females. Further, these symptoms may increase with age (Anger, Saigal, & Litwin, 2003; Boyle et al., 2003; Litman et al., 2007; Milsom, 2009; Moller, Lose, & Jorgensen, 2000; Norby, Nordling, & Mortensen, 2005; Shimabukuro, Takahashi, & Naito, 2006; Zhang et al., 2005).

In a population-based, epidemiological study on LUTS, urinary incontinence, and overactive bladder (OAB) symptoms in adults (18 years old and older) in five countries (Canada, Germany, Italy, Sweden, and England), the general prevalence of LUTS was 67% among females and this rate increased with age (Irwin et al., 2006). In the same study, the highest increases in LUTS were seen between the ages of 40 to 59, with an increased rate of 5.9%. The components of LUTS most widespread in females were nocturia at 54.5% and stress urinary incontinence at 48.9%.

Conversely, in this same study, general prevalence of LUTS...
was 62.5% in men, with UI reported by 5.4% of men. All symptoms among men increased in prevalence with advancing age, especially for those 60 years of age or older (Irwin et al., 2006). In an epidemiological, population-based, prospective cohort study of men with UI (496 men aged 65 to 106 years old), prevalence of incontinence at baseline was 27% (Goode et al., 2008). In a population-based study conducted in Turkey consisting of 2000 participants over 65 years of age, UI prevalence was 21.5% in men (Ateskan, Mas, Doruk, & Kutlu, 2000).

**UI Management Issues**

Although a high distribution of LUTS exists among women, they are not adequately aware of the importance of consulting a medical institution for help. As a result, LUTS (including OAB and UI) are the most common symptoms among all age groups around the world, and their prevalence increases in correlation with age. Further, the prevalence of LUTS in women was higher than rates reported for other chronic diseases, such as type 2 diabetes mellitus, which was 5% overall (Centers for Disease Control and Prevention [CDC], National Center for Health Statistics, & Division of Health Interview Statistics, 2005). However, for those older than 65 years of age, LUTS was reported at 15% (CDC, National Center for Health Statistics, & Division of Health Interview Statistics, 2005), asthma was 8% (National Center for Health Statistics, 2002), and hypertension was 29% (Bradway, Coyné, Irwin, & Kopp, 2008; Glover, Greenland, Ayala, Croft, & the Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, 2005). Considering the population of older adults is increasing, these chronic conditions may become even more widespread and may aggravate financial, personal, and social problems (Bradway et al., 2008).

UI is a condition that poses considerable human and social complications, bringing physical discomfort, economic burden, shame, and loss of self-confidence, all diminishing quality of life (Kelleher, 2001; Wagner & Hu, 1998). Appropriate management can reduce the suffering that accompanies UI. Many studies have reported that conservative treatments (therapies that do not involve pharmacological or surgical intervention) can be helpful in managing the condition (Wilson et al., 2002). However, most women accept UI as an ailment connected with childbearing and age, and believe symptoms should not be considered serious (Hagglund, Walkers, Larsson, & Leppert, 2003). Although urinary symptoms are extremely common, with as many as one-third of the population over 40 years of age experiencing a clinically significant disorder (Perry et al., 2000), and the impact on quality of life can be substantial, relatively few women seek medical help (Shaw, Brittain, Tansey, & Williams, 2008; Shaw, Das, Williams, Assassa, & McGrother, 2006). Only one of four eventually seeks help from a physician (Addis, 2008).

In a population-based prevalence study conducted in Canada, Germany, Italy, Sweden, and England, the vast majority (80%) who had LUTS for at least one year, as well as 49% who had LUTS for three years, had been suffering from symptoms. Only 60% of females with OAB have consulted with a doctor, and only 27% have had continuous treatment (Milsom et al., 2001).

In many studies, it has been determined that females with UI seek help for its symptoms in very low percentages: 14% (Hagglund, Walker-Engström, Larsson, & Leppert, 2001), 27.8% (Yu, Wong, Chen, & Chic, 2003), and 38% (Kinchen et al., 2003). In a study that researched women who had stress urinary incontinence and who delayed seeking help, it was reported that 74% of the women had waited for one year and 46% had waited for three years before seeking help (Koch, 2006).

UI and the attitude of women towards it affect help-seeking behavior (Addis, 2008; Bush, Castellucci, & Phillips, 2001; Peters, Horrocks, Stoddart, & Somerset, 2004; Shaw, Tansey, Jackson, Hyde, & Allan, 2001; Shaw et al., 2008). In addition, the attitude and behavior of women toward health care, previous experience of talking with people who have the problem of UI, the attitude toward the treatment choices, age, and UI type may also be influential determinants when seeking care (Koch, 2006; O’Donnell, Lose, Sykes, Voss, & Hunskarr, 2005).

More than half of the general population of older adults with UI initiate self-treatment rather than seek medical attention from health care providers. Results of previous research indicate certain beliefs and attitudes about UI are barriers to seeking help seen in the general population and minority groups include 1) a belief that incontinence is normal and only a minor problem, 2) a lack of awareness of available treatment, 3) low expectations for treatment effectiveness, and 4) shame and embarrassment about UI (Bush et al., 2001; Dugan et al., 2001; Horrocks, Somerset, Stoddart, & Peters, 2004; Kinchen et al., 2003; Mason, Glenn, Walton, & Hughes, 2001; Minassian, Drutz, & Al-Badr, 2003).

Blanes, Pinto, and Santos (2001) report misconceptions about UI are common in the general population. Negative attitudes toward UI, such as embarrassment, frustration, anxiety, annoyance, depression, and fear of odor, are common (Liao, Dougherty, Liou, & Tseng, 2006). In a study conducted by Bush et al. (2001), the majority of women with UI expressed difficulties in
verbalizing their experiences. Bush et al. (2001) and Ashworth and Hagen (1993) conducted in-depth interviews to investigate women’s attitudes toward UI. These authors found their subjects perceived UI as a taboo topic, and attributed urine loss to a lack of personal control. Women who have negative beliefs and attitudes about UI or health care providers and less knowledge about available treatment are less likely to seek help (Kang & Crogan, 2008).

Impact on Sexual Function in Women

Sexual dysfunction is frequently seen among females with urinary symptoms. UI during sexual intercourse is frequently seen in women who have urinary symptoms in general. It affects the quality of the woman’s sexual life, and along with this, the quality of life at a significant level. In a study of 633 females between 24 and 83 years of age who were sexually active and/or being treated because of overactive bladder, the prevalence of UI during sexual intercourse was 36.2%. The effect on quality of life scores was reported to be very high among women who reported UI during sexual intercourse (Espuña & Puig, 2008).

In a study conducted on 7500 women with LUTS (stress, urgency, and mixed UI) complaints in Denmark, the sexual dysfunction rate was 58% (Hansen 2004). In a study conducted on 10,000 females in Germany by Korda, Braun, and Engelmann (2007), 41.2% of women had UI/LUTS, while 46.5% of the women who had UI suffered from a sexual dysfunction disorder (Korda et al., 2007). In a study conducted on 216 women with LUTS in Italy, 34% of women with LUTS reported hypoactive sexual disorders (Salonia et al., 2004). In women who have urge incontinence, study participants have indicated leakage, as well as a very urgent need for urination, during sexual intercourse.

In a similar study conducted by Ozerdogan, Beji, and Yalçın (2004), incontinence during sexual intercourse was reported by 10.6% of participants. In addition, because of incontinence during coitus, discomfort caused by nocturnal incontinence and feelings of shame, frequency of sexual intercourse decreases, and a pattern of sexual dysfunction may be formed (Hansen, 2004).

Theoretical Perspective

Several theoretical models of help-seeking have been utilized in the literature. These include the Anderson Behavioral Model (Anderson, 1968) and social-cognition models, such as the Health Belief Model (Becker, 1974). A framework of outcome and health behavior proposed by Shaw (1999) encompasses several social-cognition models and reflects the multifactorial nature of human behavior.

The Anderson Model proposes that the differential use of health services depends on three categories of variables: predisposing, enabling, and need factors (Anderson, 1968). The Health Belief Model (Becker, 1974) focuses on two aspects of an individual’s representation of health and behavior: threat perception and behavioral evaluation. Threat perception depends on perceived susceptibility to illness and anticipated severity of the consequences of the illness. Behavioral evaluation consists of beliefs concerning the benefits of health behaviors and the costs or barriers to behavior. Shaw’s framework of health behavior proposes the experience of symptoms and the subsequent health behavior are based on an individual’s appraisal of the symptom as being a health threat, followed by an assessment of the severity of the health threat and the formation of behavioral intentions (Shaw, 1999).

UI in a Global Context

A few studies examine the socio-cultural or ethnic influences on health-seeking behaviors for UI. A study in the United Kingdom reported Muslim and Hindu women preferred to discuss UI with a close female relative, whereas Jewish, Christian, and Buddhist women felt equally comfortable discussing UI with a close relative of either gender. Jewish women were more likely to seek medical advice about their UI, whereas Christian, Muslim, Buddhist, and Hindu women cited embarrassment or belief that incontinence is a normal part of aging as reasons for not seeking medical help (Chaliha & Stanton, 1999). Wilkinson (2001) described three factors that prevented Bangladeshi women from accessing continence services: limited availability of translated information, embarrassment, and insufficient numbers of female doctors in the United Kingdom.

In Taiwan, help-seeking behavior is less common than in the West; only one-fifth to one-fourth of women with UI seek medical treatment (Chen, Lin, Hu, Chen, & Lin, 2003; Lin & Dougherty, 2003). In the study conducted by Ateskan et al. (2000) in Turkey, 12.6% of women and 10.3% of men with incontinence sought care for urinary symptoms. There was no significant difference in care-seeking behavior between both sexes.

In certain groups, such as older people, patterns of consulting with a health care provider result in high rates of unmet needs (Walters, Iliffe, & Orrell, 2001). Several reasons have been suggested, including low expectations, resignation, and withdrawal (Walters et al., 2001). In addition, many conditions are attributed to aging and not considered a medical condition (Shaw et al., 2001). Urinary and incontinence symptoms commonly experienced by older people are stigmatizing or embarrassing, and are consequently neglected (Shaw et
al., 2001). The strongest indicator of whether or not a woman will engage in treatment-seeking behavior (due to her LUTS) is the level of discomfort experienced from LUTS symptoms, which changes accordingly (Ozerdogan et al., 2004).

In the Norwegian Epidemiology of Incontinence in the County of Nord-Trøndelag (EPIN-CONT) Study conducted by Hannestad, Rortveit, and Hunskaar (2002), approximately 70% of women who reported to be “much bothered” or who considered their condition “a great problem” had seen a doctor for their UI. By contrast, only 17% of women who considered their UI “a small problem” had seen a doctor (Hannestad et al., 2002).

In the EPIC Study conducted in Canada, Germany, Italy, Sweden, and England, 53% of the women with OAB reported their symptoms were discomforting. This percentage increases to 67% when it includes women who have OAB and urgency urinary incontinence. Fifty percent of the women who reported their condition was discomforting sought help from a health care professional (Milsom et al., 2006).

Furthermore, in a study conducted in Pakistan by Andrades et al. (2004) on the distribution of LUTS and on demonstration of help-seeking behavior among females 18 years of age and older, 52% of the women reported experiencing at least one or more urinary symptoms in the past. The most common symptom reported in this study was stress urinary incontinence (38.4%); following this respectively were burning sensation during urination (34.4%), frequency (26%), painful urination (20.4%), urgency urinary incontinence (18.8%), the incapability to fully discharge the bladder (14.4%), dribbling incontinence (12.4%), and decreasing flow (8.4%). In addition, 43% of females experiencing LUTS never displayed help-seeking behavior for their UI problems.

Current UI Management for Turkish Women

Two prevalence studies done in Turkey report the prevalence of IU to be 49.5% in the Western region and 46.5% in the Eastern region of Turkey (Onur, Deveci, Rahman, Sevindik, & Acik 2009; Tozun, Ayranci, & Unsal, 2009).

According to research conducted on different areas in Turkey, LUTS incontinence in women varies between 16.4% and 68% (Cetinel et al., 2007; Filiz, Uludag, Cinar, Gorpelioglu, & Topsever 2006; Kocak, Okyay, Dundar, Erol, & Beser, 2005; Onur et al., 2009; Oskay, Beji, & Yalcin, 2005; Ozerdogan et al., 2004; Tozun et al., 2009).

Stress UI has been reported at 39.8%, mixed UI at 28.9%, and urge UI at 24.8%, demonstrating the most widespread types of UI (Cetinel et al., 2007). In the study conducted on 5565 females, more than half of the women (53%) with UI reported no discomfort, while only 12% of the women sought medical help (Cetinel et al., 2007). Hospital-based nurses working in Turkey reported a 21.5% prevalence of UI and indicated it had a negative impact on their general quality of life (Yamur & Ulukoca, 2010).

The UI prevalence of the postmenopausal period was found to be 32% to 73% in the literature (Buchsbaum, Chin, Glantz, & Guzick, 2002; Simeonova, Milsom, Kullendorf, Molander, & Bengtsson, 1999). In Turkey, in a study by Senturk and Kara (2010) of 216 post-menopausal women, UI prevalence was detected in 45.3%. Mixed UI was most prevalent (64.3%), with stress UI (23.5%) and urgency UI (12.2%) also detected. In a study of 500 females, in which the urogenital disorders post-menopausal women experienced were evaluated, 11.6% of the women had difficulty during urination and 68.8% had UI (Oskay et al., 2005). Among the women with UI, 37.2% had stress UI, 32.3% had urgency UI, and 30.5% had mixed UI symptoms. Most women in this group (83.6%) had less frequent sexual intercourse and a decrease in sexual drive. In addition, there was a 78.1% decrease in sexual satisfaction and a 77.7% decrease in incidence of orgasms, while 45.3% were experiencing dyspareunia (Oskay et al., 2005).

Similarly, in a qualitative study of women with OAB and UI, almost half reported a decrease in sexual drive, and most reported release of urine during sexual intercourse. These women stated they have pain or difficulty with orgasm because of the fear of UI or anxiety (Coyne, Stoeckl, Rogers, Jumadilova, & Bavendam, 2006).

In another qualitative study of women with urinary leakage during sexual activity, Oskay, Beji, and Yalcin (2006) determined the issue of UI creates important restrictions in the social lives of women. UI during sexual activity affects their sexual life negatively because of feeling ashamed, being realized, smelling, or getting wet (Oskay et al., 2006).

UI is common but still remains a largely hidden health problem in Turkish society. Although UI is experienced by many women, it is not perceived as a health problem. Therefore, women do not show help-seeking behaviors. For the management of UI symptoms, women try to cope with symptoms by implementing some practices (Ateskan et al. 2000; Cetinel et al., 2007; Yaci, 2010). In a study of 229 women, 56.5% of the patients did not consider UI as a health problem, 80.0% had never admitted to a health institution for UI, and 85.9% had never received necessary treatment for UI although they lived with the symptoms of UI for 13 to 96 months (1 to 8 years) (Kok, Senel, & Akyiz, 2006).

Few studies have investigated the methods used to deal with UI in Turkey (Arslan et al., 2001; Ertem, 2009). Coping behaviors of women for the management of UI symptoms were keeping feet
warm, performing hot application to perineum, taking more baths than usual, reducing the daily intake of drinking water, using pads or cloth pads, changing underwear/carrying spare clothes, cleansing after voiding using hot water, sitting on hot bricks and radiators, wearing clothes that are easily removed, wearing long pants/tights, restricting physical activity, restraining from social life, and praying. A brief description of a patient scenario that illustrates beliefs and practices of women toward incontinence can be found in Figure 1.

There are three non-governmental organizations directly related to UI in Turkey:
- Turkish Society of Urogynecology and Pelvic Reconstructive Surgery (www.urojinekoloji.org).
- Continence Society (www.kontinansdernegi.org).

The Turkish Society of Urogynecology and Pelvic Reconstructive Surgery is a multi-disciplinary organization. Urologists, gynecologists, nurses, and physical therapists can be members. It has a nursing subgroup. The Continence Society is an association with urologist physician members.

Nurses can play a unique and important role in the care of the individual with UI. Nursing staff are generally employed in “front line” roles and have day-to-day contact with patients. Thus, they are more likely than other practitioners to be the first person to discuss continence issues with a patient (Wells, 2000).

Reference:
A 45-year-old Gravida 5 Para 3 Turkish woman complains of a six-year history of loss of urine four to five times each day, typically occurring with coughing, sneezing, or lifting. She denies dysuria or the urge to void during these episodes. She works as a teacher, and these events cause her embarrassment and interfere with her daily activities. The patient is otherwise in good health. A urine culture performed one month earlier was negative.

On examination, she is moderately obese, with a body mass index (BMI) of 31.2. Pelvic examination demonstrated no organ prolapse. A midstream voided urinalysis is unremarkable. Up to now, she did not seek any advice from physicians because they believe women experience UI due to childbirth. She is practicing coping methods for the management of UI, such as urinating frequently, keeping her feet warm, applying hot cloth to perineum, and reducing her amount of daily drinking water. She has managed her loss of urine by using cloth pads or changing her underwear. She has also carried spare clothes to work in case of an accident. She routinely cleanses using hot water after voiding, restricts her physical activity, and has restrained from a social life.

She recently experienced urine leakage during a lecture, and this caused her to panic. She now fears this problem might become worse with age, and this has caused her to consider further evaluation and treatment. She heard on television there is a medical clinic specializing in UI, and she applied for an appointment.

Table 1.
Knowledge and Skills Included in Urologic Training Programs for Nurses in Turkey

<table>
<thead>
<tr>
<th>Theoretical Hours</th>
<th>Instructions</th>
<th>Applied Education</th>
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<tbody>
<tr>
<td>Information and explanations about the anatomy and physiology of the urogenital system</td>
<td>Review of the conservative treatment of UI (Kegel exercises, biofeedback, electrical stimulation, vaginal cone, electromagnetic chair, neuromodulation, pharmacotherapy, and intermittent clean catheterization)</td>
<td>Performing independent urodynamics testing</td>
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<tr>
<td>Mechanisms of normal bladder filling</td>
<td>Evidence-based practices and surveys pertaining to UI</td>
<td>Obtaining medical history, completing data collection tools, proper recording</td>
</tr>
<tr>
<td>Storage and voiding</td>
<td>Ethical issues</td>
<td>Evaluating urinary diary</td>
</tr>
<tr>
<td>Lower urinary tract symptoms</td>
<td>Neurogenic bladder</td>
<td>Making bladder training</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>Approach to diagnosis and treatment of child patients (differences from adults)</td>
<td>Assessing post-void residual urine</td>
</tr>
<tr>
<td>Risk factors</td>
<td>Toilet training for children and treatment of enuresis</td>
<td>Doing Multistikle urine analysis</td>
</tr>
<tr>
<td>Types of UI</td>
<td>Patient and employee safety</td>
<td>Evaluating pelvic floor function</td>
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<tr>
<td>Impact on quality of life</td>
<td></td>
<td>Performing pad test</td>
</tr>
<tr>
<td>Assessment of the patient with incontinence (history of UI, urinary diary, perineal pad test, stress test, Q-Tip\textsuperscript{a} test, strength of the pelvic floor muscle, uroflowmetry, cystometry, urethral pressure profile, pressure flow study, and video urodynamics)</td>
<td>Applying Q-Tip\textsuperscript{a} test</td>
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</table>
Certified training programs related to continence nursing are not yet available. In 2007, the Istanbul Provincial Health Directorate organized a certification program for nurses regarding the application of urodynamics tests in their institutions. This program had 40 theoretical and 160 practical hours (at least 30 hours dedicated to the clinical application of urodynamics testing), totaling 200 hours. Nurses who participated in the program did at least 25 urodynamics practice studies with the instructor. Five nurses performed at least 10 urodynamics studies on their own, while 10 other nurses prepared a detailed logbook with a minimum of 1000 words. Table 1 summarizes the content taught in urologic training programs for nurses in Turkey.

Nursing sessions are organized within the national and international congresses related to continence nursing. Conducting training programs on a regular basis is an important need in Turkey. There is a national book about continence nursing (Beji, 2002). The urogynecology unit at the Istanbul University Faculty of Medicine is the only institution that provides services with a multi-disciplinary approach for patients with UI. Nurses have active roles in this unit (Yalcin, 2009).

Conclusions

LUTS, UI, and OAB are highly prevalent conditions, and they continue to be a common problem in Turkey and throughout the world. Prevalence of these conditions increases with age, and numerous risk factors have been identified. Both LUTS and UI can have a profound impact on sexual behavior, as well as on an individual’s quality of life (sexually and in general). In addition to the tremendous personal and societal burden of LUTS, these symptoms also incur a significant economic cost. Although there is a high distribution of LUTS among women, they are not adequately aware of the importance of consulting a medical institution for help.

In Turkey, women usually do not prefer to seek medical advice for UI. Except for treatment-seeking behaviors, women are practicing coping methods for the management of UI, such as frequent toileting, keeping feet warm, and hot application to perineum. Health care providers must be aware of the low rates of women seeking help for this problem and the need for further education.

References


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