Research Paper

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Self-Care Guidelines for Women with Urinary Incontinence at Port Said City

Nursing

KEYWORDS : Women, Urinary incontinence (UI), risk factors.

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ABSTRACT

Background: Urinary incontinence is characterized by involuntary leakage of urine. It is highly prevalent worldwide and primarily affects women.Aim: develop self-care guidelines for women with urinary incontinence at Port Said city. Design: A cross section descriptive design was conducted. Subjects: A purposive sample of 500 women aged 20 - ≥ 60 year from January 2014, to July, 2014. A structured interview questionnaire sheet was used to collect data and consist of three parts:socio-demographic data, medical history and urinary incontinence history. Finally, the self-care guidelines was developed and given to women with UI. Setting: all outpatient clinics, port-said governmental hospitals and centers. Results: All participants reported having urinary incontinence. Frequent urination were the most complaints (47.6), followed by difficulty emptying the bladder (42.4%). The household chores had great negativeimpact on quality of lifestyle among woman with UI (59.0 %). Conclusion: UI is a common disorder affect womanin Port-Said city due to manyrisk factors which lead to the development of UI. Recommendation: Develop a screening questionnaire in larger population in order to identify and counsel women with incontinence symptoms in the different care setting.

1.Introduction

Urinary incontinence (UI); the complaint of any involuntary leakage of urine is a common problem that affects many women of all ages but is more prevalent in the elderly. It is estimated that UI affects 30–60% of middle-aged and older women in the community, and up to 80% of female nursing home residents. Despite this high prevalence, UI is both underreported and undertreated***(Good , et al., 2010, Keyock&Newman, 2011 and Markland, et al, 2011).*** Women are twice as likely as men to experience incontinence.

Urinary incontinence (UI) affects 23% to 55% of women (Abrams et al 2006). The 3 most common types are stress urinary incontinence (SUI), urge urinary incontinence (UUI), and mixed urinary incontinence (MUI). SUI is defined as the involuntary leakage of urine on effort/exertion or sneezing/coughing or, urodynamically, as the involuntary leakage of urine during increased abdominal pressure in the absence of a detrusor contraction. UUI is the involuntary leakage of urine accompanied by or immediately preceded by urgency. MUI isthe involuntary leakage of urine associated with urgency as well as with exertion, effort, or sneezing ***(Hunskaar, et al, 2004 and Diokno, et al, 2004)***

Risk factors for UI can be classified as predisposing, obstetric, gynecologic, and promoting factors. Predisposing factors include race (Caucasian women are more susceptible), genetics, congenital defects and neurologic abnormalities. Obstetric and gynecologic factors include pregnancy/childbirth/parity, pelvic surgery and radiotherapy, and pelvic organ prolapse. Promoting factors include increased age, comorbidities (such as diabetes and vascular disease), changes in mobility, obesity, conditions associated with increased abdominal pressure, cognitive impairment, urinary tract infection, and medications such as oral estrogen substitutes, diuretics and anticholinergic agents ***(Deng 2011)***

Guidelines are systematically developed statements to assist patients and providers in choosing appropriate health care for specific clinical conditions. While guidelines are useful aids to assist providers in determining appropriate practices for many patients with specific clinical problems or prevention issues, guidelines are not meant to replace the clinical judgment of the individual provider or establish a standard of care (Group Health, 2013).

1.1.Significance of the study:

Most surveys indicate that fewer than half of women with urinary incontinence report the problem to their primary care provider. Because UI may have significant impacts on quality of life, including social withdrawal, depression, and sexual dysfunction, as well as increased risk of falls and urinary tract infections, it is important that all women are screened for urinary incontinence. In addition, women have limited knowledge about urinary incontinence and find it difficult to care for themselves, yet there is little training on incontinence designed for women. Hence, there is a real need to develop self-care guidelines for women with urinary incontinence (Altintas et al 2013).

1.2.Aim of the study:

The aim of this study was to develop self-care guidelines based on assessment for women with urinary incontinence at Port Said city.

This aim was achieved through:

- Determining the symptoms of women towards urinary incontinence .and assessing the effect of these complaints on their quality of life.
- Identifying risk factors associated with urinary incontinence among women at Port Said city.
- Developing and implementing self-care guidelines for women with urinary Incontinence based on the previously detected needs of women toward urinary incontinence.

2. Methods

2.1.design:

A cross section descriptive research design was used in this study.

2.2.Setting:

This study was carried out at all outpatient clinics, port-said governmental hospitals and centers.

2.3.Sample:

A purposive sample consisting of all available women complaints with urinary incontinence over 3 months according to this inclusion criteria: age: 20-≥60 years old and non pregnant women at the time of study.

2.4.Tools for data collection: A structured Interview Questionnaire sheet: consisting of three parts:

- **Part 1: Socio-demographic data:**

It was concerned with the demographic characteristics of the study subjects such as age, marital status, educational level, and occupation.

- **Part II: Medical and obstetrics history data:**

This part was concerned with women's complaint such as; presence of chronic diseases, medications, number of pregnancy, labor, number of children, and type of **patients' habits.**

Part III: Urinary incontinence history data:

- **This part was concerned with women's repots of complains of urinary incontinence and different aspects of life as subjectively perceived by the women (Gunn Towbin Center).**

- **Self-care guidelines:**

It consisted of definition, types, risk factors, and diagnosis, management and Kegal exercises. The educational media were used brochures, laptop screen show(National Continence Helpline, 2013 and Center UI in VästraGötaland).

2.5.Preparatory phase: Developing structure questionnaire and the review of related literature which carried out between October 2013 to December 2013 a period of 3 months to develop.

2.6.Content validity of the tool was checked by a panel of five experts from the Community, Medical and Obstetric Health Nursing specialty and modifications were done based on their opinions.

2.7.A pilot study was carried out on 50 women in order to test clarity and applicability of the tool. The pilot study was also used to estimate the time needed for each subject to fill in the questions. Modifications were done based on the results of the pilot study. Those who shared in the pilot study were excluded from the main study sample.

2.8.Field work:

The actual field work started from January 2014, to July, 2014. A formal letter was issued from the Faculty of Nursing, at port-said University to the chairman of the governmental hospitals and centers requesting approval for conducting this study. Following, the researchers explained the purpose and process of the study to the women and got their oral consent to participate in it. The researchers emphasized strongly that the information collected would be used for scientific research only, would be confidential, will be studied to improve their case prevalence related to urinary incontinence.

The interviewing questionnaire was held with each woman with the researchers to obtain the exact meaning from them for about 20-30 minutes in the forewomen room, after that the researchers read questionnaires then explained each element simply and briefly. The self-care guidelines for women with urinary incontinence were developed based on reviewing of related literature and the result of the assessment tools.

2.9. Ethical considerations:

During the interview, the women were informed about the nature of the study, and the right to withdraw at any time, or refuse to answer specific question without giving any reason. Women verbal agreement to participate was obtained. Confidentiality of their names and information was regarded.

2.10. Statistical analysis:

After data collection, they were coded and transferred into special design formats to be suitable for computer feeding. The Statistical Package for Social Science (SPSS) version 16 was utilized for statically analysis and tabulation as well as some graphic presentations of the results.

3. Results

Table 1 shows the demographic characteristics of women in the study subjects. It can be noticed that the majority of women were in the age group 20≥ 60years. Their mean age was 51.096± 12.86 years. (87.6%) of women were married. As regards education, 36.2% & 20.0% were secondary education and university education and one half of them (50.6%) were housewives.

Table 2 reveals the medical and obstetric history in the present study. It can be seen that 36.2% & 28.8% of them had 3-4 times and more than 4 times pregnancy, respectively, most of them normal delivery, while 6.6% in the study sample had a cesarean section. As regards the medication where the women used to relieve their complains, more than two fifth (43.8%) used diuretics and 14.6% used estrogen and/or progesterone.

Figure 1 indicates distribution of the study subjects according to their chronic disease. It can be observed that 42.6% of them had hypertension, 38.2% were diabetetics, (24.4% & 20.4%) had constipation and urinary infection, respectively.

Concerning the risk factors about urinary incontinence, **table 3** shows that positive family history was the risk factor in about two third of the cases (63.2%). High daily caffeine and low fluid intake were the second risk factors, and accounted for 41.6%& 33%. While, over weight (BMI≥25 -29.9), obese (BMI ≥30) and urinary infection were the risks factors of urinary incontinence for 50,6%, 16.60 and 20,4% of the women, respectively.

As shown in **table 4** the complains of women were classified into frequent urination, leakage related to feeling of urgency, leakage related to physical activity, coughing, or sneezing, small amount of Leakage (drops), difficulty emptying the bladder, and pain or discomfort in lower abdomen or genital organs. Frequent urination were the most complains (47.6), followed by difficulty emptying the bladder (42.4%) and small amount of leakage (drops) (41.6%). leakage related to physical activity, coughing, or sneezing (39%) and pain or discomfort in lower abdomen or genital organs (34.6%). leakage related to feeling of urgency was the least complain of all complains.

Table 5 reflects the impact of women with urinary incontinence on their quality of life; the table shows that inability to do household chores (cooking, house cleaning, and laundry) was the most common reported among women (59.0 %) with great complaint. No entertainment activities such as movies was the second reported complain (55.8%). 52.0 % the women reported lack of physical recreation , while (48.8%& 47.2%) reported inability to travel by car or bus for more than 30 minutes from home and no participation in social activities outside the home,respectively. 27.6% and 25.6 respectively of women had emotional trouble and feeling frustrated with great complaint.

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Table (1): Percentage distribution of women with urinary incontinence according to their socio-demographic characteristics (No=500):

Item	No	(%)
Age in years		
• 20 -	99	19.8
• 40-	277	55.4
• ≥ 60	124	24.8
Mean ± SD = 51.096 ±12.86		
Marital status		
• Single	53	10.6
• Married	438	87.6
• Divorced	1	0.2
• Widowed	8	1.6
Level of education		
• Illiterate	219	43.8
• Secondary	1 81	36.2
• University	100	20.0
Occupation		
• Governmental	178	35.6
• Private sector	69	13.8
• House wife	253	50.6

Table (2): Distribution of women with urinary incontinence according to their obstetric and medical history (No=500):

Item	No=500	(%)
Number of pregnancies		
• None	72	14.4
• 1-2	103	20.6
• 3-4	181	36.2
• More than 4 times	144	28.8
Number of normal deliveries *no* 395		
• 1-2	89	20.8
• 3-4	180	42.1
• More than 4 times	126	29.4
Number of cesarean section	33	7.7
Number of children*no428*		
• 1-2	118	27.6
• 3-4	189	44.1
• More than 4 times	121	28.3
History of urinary tract surgeries		
• Yes	33	6.6
• No	467	93.4
Medication used		
• Estrogen and/or progesterone	73	14.6
• Diuretics	219	43.8
• Sedatives	50	10.0
• Antihistamines	110	22.0

Figure (1): Distribution of women with urinary incontinence according to presence of chronic diseases (No=500):

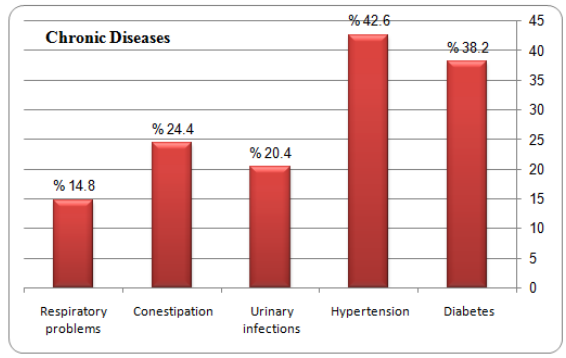

Table (3): Distribution of women with urinary incontinence according to risk factors related to UI (No=500):

Item	No	(%)
Hereditary factors		
• Positive family history with urinary incontinence	316	63.2
Dietary factors		
• Caffeine intake≥ 2 cup/ day	208	41.6
• Fluid intake < 1 liter/ day	165	33.0
• Fluid intake ≥ 2 liter/ day	101	20.2
Obesity factors		
• Over Wight (BMI≥25 -29.9)	253	50,6
• Obese(BMI ≥30)	83	16.60
Gynecological factors		
• Hysterectomy	20	4.0
Urological factors		
• Urinary infection	102	20.4

Table (4): Distribution of symptoms of urinary incontinence according to woman complaints (No=500):

Symptoms	Slightly		Moderately		Greatly	
	n.	%	n.	%	n.	%
➢ Frequent urination	113	22.6	149	29.8	238	47.6
➢ Leakage related to feeling of urgency.	220	44.0	131	26.2	149	28.8
➢ Leakage related to physical activity, coughing, or sneezing.	200	40.0	105	21.0	195	39.0
➢ Small amount of Leakage (drops).	193	38.6	99	19.8	208	41.6
➢ Difficulty emptying the bladder.	210	42.0	78	15.6	212	42.4
➢ Pain or discomfort in lower abdomen or genital organs.	230	46	97	19.4	173	34.6

Table (5): Distribution of women with urinary inco ntinence according to impact on the quality of life(No=500):

Item	Not at all		Slightly		Moderately		Greatly	
	n.	%	n.	%	n.	%	N	%
Inability to do household chores (cooking, house cleaning, laundry)	26	5.2	113	22.6	66	13.2	295	59.0
No physical recreation such as walking, swimming, or other exercise	24	4.8	144	28.8	72	14.4	260	52.0
No entertainment activities (movies, concerts, or others)	18	3.6	144	28.8	59	11.8	279	55.8
Inability to travel by car or bus for more than 30 minutes from home	32	6.4	133	26.6	91	18.2	244	48.8
No participation in social activities outside the home	40	8.0	166	33.2	58	11.6	236	47.2
Emotional health (nervousness, depression, etc.)	61	12.2	199	39.8	102	20.4	138	27.6
Feeling frustrated	78	15.6	214	42.8	80	16	128	25.6

Items 1,2 =physical activity.

Items2,3 =travel.

Items5=social/relationships;

Items 6 and 7 = emotional health.

4.Discussion

The results of the present study revealed that the more than half of women participated in this study were in the age group 20-60 years Most of them women were married. About one fifth of them were highly educated and one half of them were housewives. Based on demographic characteristics for UI women the present study result strongly suggests that factors such as age, educational level, and heavy labor regarding type of occupation have a great impact on developing UI, which has also been reported in other studies. Heavy labor is identified as a possible risk factor for UI as it burdens pelvic floor muscle (Walker and Gunasekera 2011).

This result goes in the same line with (Klauser et al, 2004) who reported that, the impact of aging on UI is attributed to many factors, including physiological and structural changes of the urinary tract such as problems with bladder elasticity, and mechanical and functional problems of the sphincter. Stress, urge and combination of both are more common types of urinary incontinence in different studies(Sobhgol et al 2008).

The present study focuses on the risk factors of UI in women. It shows issues of the urinary tract, such as diabetes, urinary infection and constipation, play a notably important role, as well. Diabetes is an important risk factor in our study, which is similar to a study by (Hsieh et al. (2008) who found that diabetes increases the risk of lower urinary tract infection and tends to cause an overactive bladder by vascular neuropathy, Yoshimura et al (2005), Constipation is highly associated with urinary incontinence because of high abdominal pressure, which increases the pressure of urethral and influences pelvic support tissue (Al-Badr et al 2012)

Regarding the dietary risk factors, this study showed that caffeine intake for tea or coffee more than 2 cups / day was found more than two fifths of women with UI. Low fluid intake was presented in 33.0 of women suffered from UI, but high fluid intake more than 2 liter/ day was found 20.2% of women with UI. On the other hand high caffeine intake can lead to urinary irritancy and diuretic effect. Also low fluid intake can lead to urine concentration and increase the irrelative effects of dietary substance (Newman 2001),excessive fluid intake can contribute to nocturia and nocturnal enuresis (O'Connell and McGuire, 1996). However the study of Hannestad (2003)showed no correlation between UI and nutritional habits.

The present study indicates that over weight (BMI<25 -29.9), obese (BMI ≥30) were the risks factors of urinary incontinence for 50,6%, 16.60 respectively. This in agreement with Bump (1992), reported that high BMI caused a high abdominal pressure, which burdened pelvic floor muscle which associated with presence of all subtypes of UI. Also Brown et al (1996), found strong association between increasing BMI and presence of all subtypes of incontinence.

Regarding clients' complaints, the results of the present study showed that frequent urination were the most complains affecting near half of the women participated in the study (47.6%), followed by difficulty emptying the bladder (42.4%) and small amount of leakage (drops) (41.6%). Leakage related to physical activity, coughing, or sneezing (39%) and pain or discomfort in lower abdomen or genital organs (34.6%). these findings are supported by García-Pérez (2012) who reported that stress incontinence was the most common form (56.8%), followed by mixed (31.1%) and urge incontinence (10.0%).

Urinary incontinence is a common symptom among woman that effect on the different forms of life styles such as physically, psychologically, socially, and economically (Abrams et al 2006). In the present study the inability to do household chores (cooking, house cleaning, and laundry) was the most common reported among women . No entertainment activities (movies, concerts, or others) was the second reported among patients. The third most frequently reported was no physical recreation such as walking, swimming, or other exercise. other life influences reported by patients included inability to travel by car or bus for more than 30 minutes from home and no participation in social activities outside the home. Lastly, emotional trouble (Feeling frustrated nervousness, depression, etc.) included great complaint 27.6, slight complaint 39.8, and moderate complaint (20.4).

Another observation, the persons with UI tend to change their behavior in an effort to cope with their condition. Common changes include suppressing or reducing activities that may trigger urine loss, such as physical exercise and ingestion of fluids, in an attempt to minimize UI episodes and the cost of continence aids (Ruff et al, 2002) In the present study successful formulation of guideline can reduce a global problem for women, associated with treating this disorder and provide valuable experiences for women.

5. Conclusion & Recommendation.

UI is a common disorder in Port-Said women, and many risk factors may affect the development of UI including at any age aging, overweight, lack of education, pregnancy history, gynecological disease, other chronic diseases, constipation, and urinary tract infection. These situations alarming,it provides an opportunity for developing guideline help women with urinary incontinence to lead healthier lives.

The results suggest that there might be a need to develop a screening questionnaire in larger population in order to identify and counsel women with incontinence symptoms in the different care setting. In addition, women need to obtain accurate information, and improve their skills related to urinary incontinence training.

Further studies will be needed to highlights for evidenced-based assessment and focuses on the initial evaluation for possible causes of transient UI. Also, will be needed to develop intervention program for nurses utilizing current evidence to guide the appropriate assessment, treatment, and management of UI.

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