

## **Women's attitude towards prevention and rehabilitation of stress urinary incontinence**

Wojno A.<sup>1\*</sup>, Terlikowski R.<sup>2</sup>, Knapp P.<sup>1</sup>

<sup>1</sup> Department of Gynecology and Oncological Gynecology, University Hospital in Białystok, Poland

<sup>2</sup> Department of Rehabilitation, Medical University of Białystok, Poland

### **ABSTRACT**

---

**Introduction:** Stress urinary incontinence (SUI) is a troublesome and embarrassing problem for many people. It is five times more common in women than in men. Although the ailment can be treated, prevention is of the highest importance. Dissemination of the knowledge of prevention and rehabilitation would contribute to the improvement of life quality among women at risk of SUI.

**Purpose:** Assessment of women's attitude towards prevention and rehabilitation of SUI.

**Materials and methods:** The study was performed in a group of 280 women treated in the Department of

Gynecology and Oncological Gynecology, University Hospital in Białystok. A proprietary questionnaire was used for data collection.

**Conclusions:** Women with SUI have poor knowledge of its preventive measures. Health-promoting actions in the field of prevention and rehabilitation of SUI should become intensified, which requires more substantial involvement of nursing staff.

**Key words:** Stress urinary incontinence (SUI), prevention, rehabilitation

---

**\*Corresponding author:**

Department of Gynecology and Oncological Gynecology  
University Hospital in Białystok  
ul. M. Skłodowskiej-Curie 24a  
15-276 Białystok, Poland  
Tel.: 606292944  
e-mail: agawojno320@interia.pl

Received: 27.05.2014

Accepted: 02.06.2014

Progress in Health Sciences

Vol. 4(1) 2014 pp 130-135

© Medical University of Białystok, Poland

## **INTRODUCTION**

Stress urinary incontinence (SUI) is the involuntary leakage of urine through the urethra due to the increased intra-abdominal pressure, when intra-bladder pressure (being the sum of the so called detrusor pressure and intra-abdominal pressure on exertion) exceeds the maximum intra-urethral pressure and is not accompanied by unstable detrusor muscle contraction [1,2]. Urinary incontinence (UI) is a global consequence of deleterious effects of numerous factors, including past labors, assisted deliveries, obesity, smoking, constipation, hormone deficiency and others [3,4]. Many women believe that urinary incontinence is the price paid for being a mother and that it is normal for aging. Due to such opinions, the ailment is considered not only embarrassing but also incurable. Therefore, patients tend to conceal their symptoms, hiding them even from their doctors. Such an attitude hinders or even precludes preventive measures, and early and thus most effective treatment and rehabilitation. The unsatisfactory outcomes of the preventive and therapeutic actions force more decisive measures to be taken in the field of health education [5]. Urinary incontinence is five times more common in women than in men. Although the disorder is treatable, prevention is of utmost importance and should be started early [6]. Some authors emphasize that already in childhood all detected genitourinary abnormalities should be treated, infections combated and little girls should develop the habit of going to the toilet regularly. Prevention is mainly aimed at elimination of major risk factors and encouraging women of various ages to live healthy life. Proper hygiene, prevention of urinary tract infections or avoiding being in a hurry to finish urination are desirable factors that should be already implemented in childhood [7,8]. UI prevention does not require any additional costs but is associated with shaping proper health-promoting attitudes that may decrease its incidence [9,10]. The current study was inspired by an enormous social significance of this pathology and its relatively high prevalence.

Stress urinary incontinence is one of the most common chronic disorders in women, with the highest incidence rate in the postmenopausal period. This is especially important, considering current global demographic data, which show clearly aging tendency. A number of factors that predispose to SUI occur in the postmenopausal period. It can be expected that education on prevention, and rehabilitation would contribute to life quality improvement in women suffering from this pathology. The study objective was to assess the

attitude of women towards prevention and rehabilitation in SUI.

## **MATERIALS AND METHODS**

A total of 280 women hospitalized for various reasons in the Department of Gynecology and Oncological Gynecology, University Hospital in Bialystok, took part in the current study. Data were collected using a proprietary questionnaire consisting of two parts: I-containing demographic data and II-defining the women's attitude towards SUI prevention and rehabilitation. The study participants were divided into groups according to age, place of residence, education, past obstetric history, financial condition and marital status. Research was conducted after the Bioethics Committee at the Medical University of Bialystok number R-I-002/193/2012 permission was obtained.

## **RESULTS**

The demographic data of the study population are presented in Figure 1.

Of 280 patients, 128 (45.71%) women reported having SUI (Figure 2).

Among the respondents, 208 (74.29%) women did not know the risk factors of urinary incontinence, whereas 71 (25.71%) knew the causes. Of the women declaring the knowledge of predisposing factors of SUI, 29 indicated constipation (10.36%), 16-smoking (5.71%), 165-urinary tract infections (58.93%), 20-alcoholic beverages (7.14%), 36-effort sports (e.g. exercising in the gym) (12.86%), 140-overexertion (50.00%), 121-number of labors (43.21%), and 68-big baby deliveries (24.29%) (Figure 3).

As many as 232 women did not take any UI preventive measures, which accounted for 82.86% of the study participants. Only 44 (15.71%) admitted taking some preventive actions. Those who declared taking preventive actions against SUI mentioned hormone replacement therapy-4 (1.43%), pharmacotherapy-16 (5.71%), therapeutic devices Colpexin-12 (4.29%), vaginal cones-4 (1.43%), physical exercise-56 (20%) and surgical treatment-24 (8.57%) (Figure 4).

A numerous group of 224 women (80%) did not exercise for general fitness after labor. Among the respondents, 52 women (18.57%) perform or used to perform Kegel exercise. Out of the women who took preventive measures against SUI, 12 started to do so when the symptoms were light (4.29%), 40 still being asymptomatic (14.29%) and 16 when the symptoms were burdensome (5.71%).

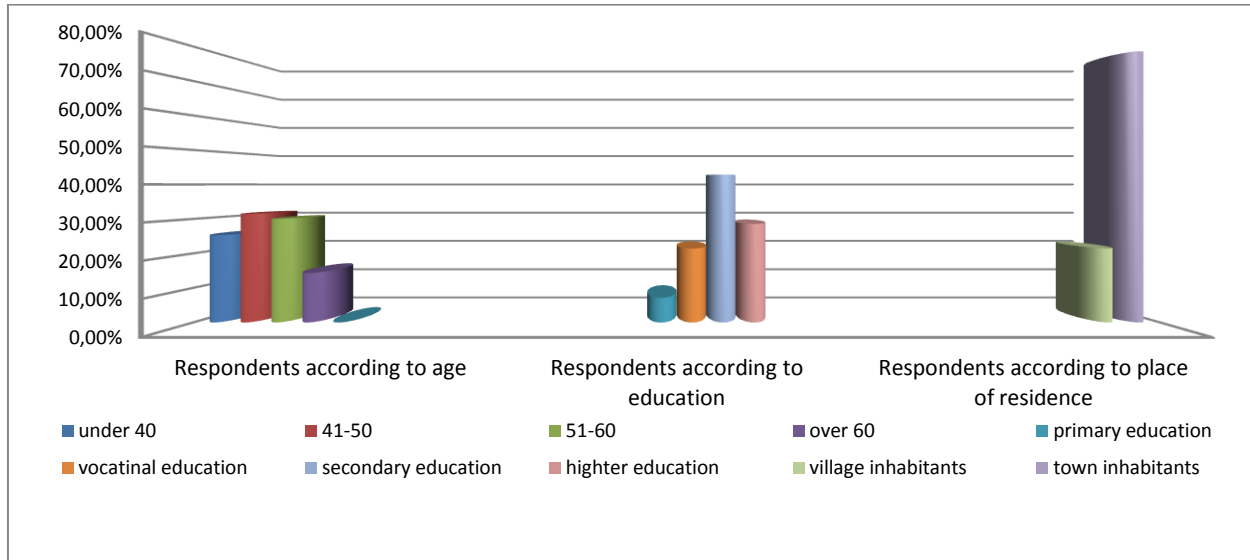


Figure 1. Demographic data.

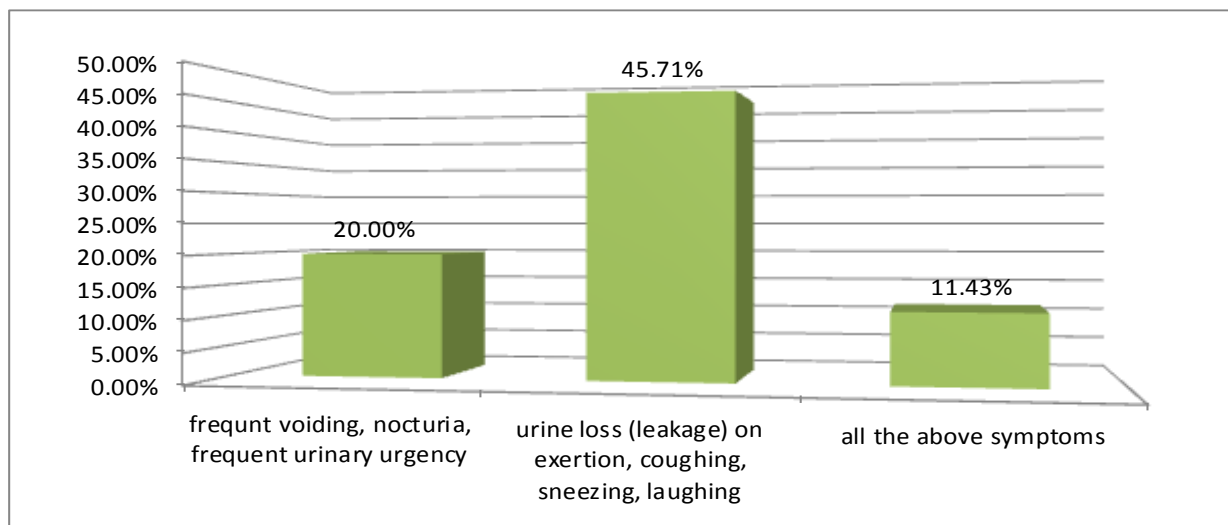


Figure 2. Symptoms reported by the study women.

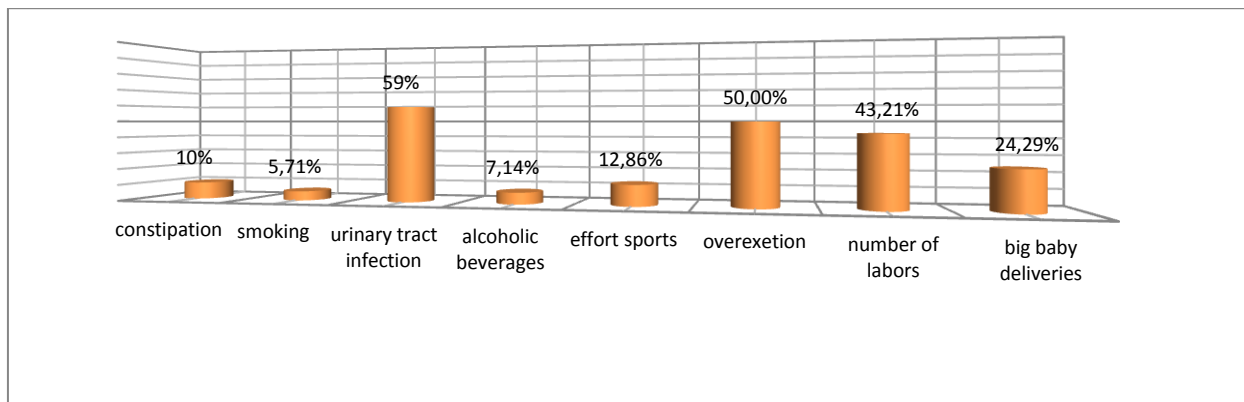
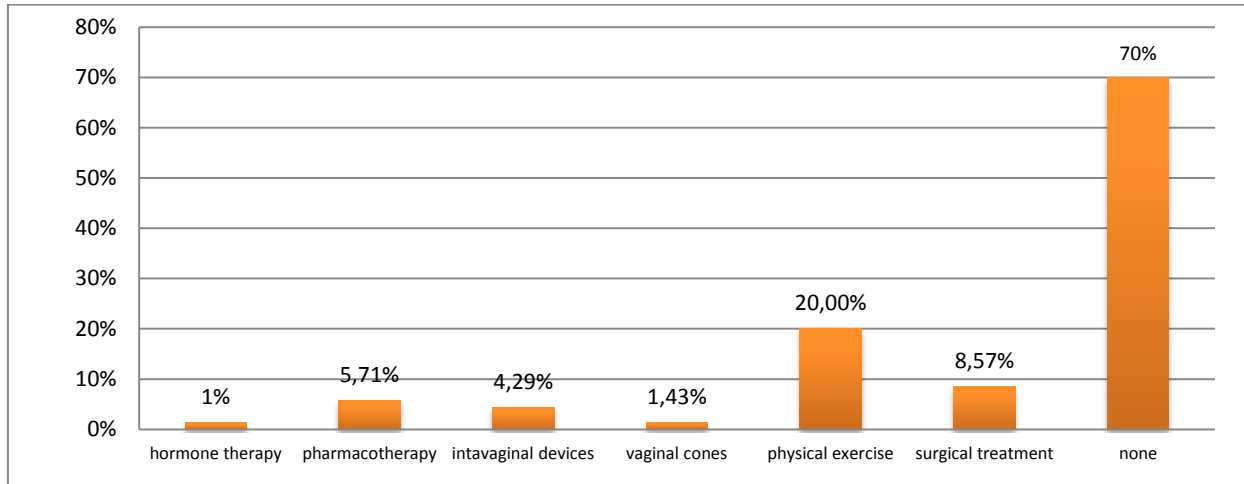


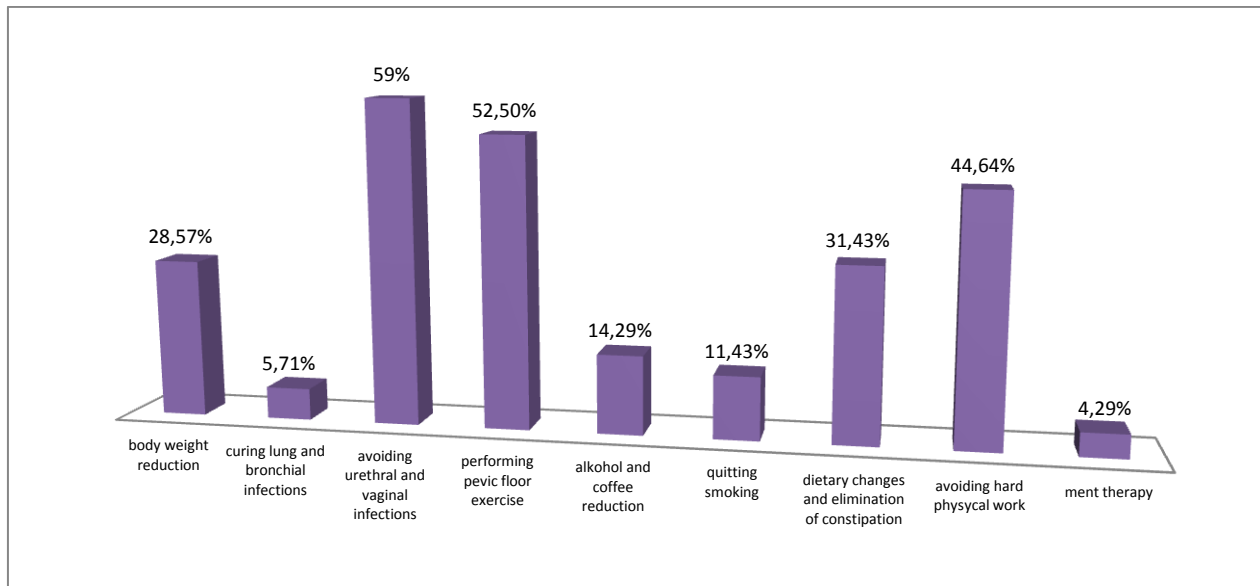
Figure 3. Women's knowledge of factors predisposing to stress urinary incontinence.



**Figure 4.** The knowledge of stress urinary incontinence prevention measures.

A large number of patients-212 (75.71%) declared the need for extending their knowledge of prevention and rehabilitation of urinary incontinence. The study participants most frequently expressed the need for lifestyle changes, such as body weight reduction-80 (28.57%), curing lung and bronchial infections-16 (5.71%), avoiding urethral and vaginal

infections-164 (58.57%), practicing Kegel exercise-147 (52.50%), reducing alcohol and coffee consumption-40 (14.29%), quitting smoking-32 (11.43%), dietary changes and elimination of constipation-88 (31.43%), avoiding hard physical work-125 (44.64%) and use of hormone replacement therapy-12 (4.29%) (Figure 5).



**Figure 5.** Needs for lifestyle changes most frequently reported by study patients.

## DISCUSSION

The knowledge of prevention and rehabilitation helps reduce the incidence and prevalence of the respective disease [11, 12]. Urinary

incontinence, due to its intimate nature, is frequently hidden and embarrassing, and hence diagnosed when it is advanced and requires not only pharmacotherapy but also surgery [13, 14].

Health-promoting education facilitating

patient self- detection of hazards and early diagnosis of the disease can accelerate implementation of preventive measures, increase treatment efficacy and reduce social expenses [15]. In the current study, over 45% of the women reported subjective observations of SUI symptoms, although in a study by Gugala et al. [13], a lower percentage was noted (26.3%). This, however, confirms relatively high prevalence of the disease. Sadly, the knowledge on its risk factors in the Polish population is very poor. Approximately, 75% of the respondents did not know the risk factors of the pathology. Physical effort and urinary tract infections were the most frequently mentioned risk factors of SUI. A small percentage of patients pointed at chronic constipation (10%), smoking (5.7%) or abuse of alcohol beverages (7.1%). Adamczyk et al. [16] obtained slightly different results concerning predisposing factors for SUI. Their study participants most frequently mentioned the effect of physical work (19.1%), smoking (19.5%), overweight (22.6%), constipations (22.6%) and lack of physical exercise (16.2%). In our study, the level of knowledge among women of SUI preventive measures was similar to that on the risk factors. More than 80% (229 women) had no idea of its prevention. Over 70% (198 women) admitted not taking any preventive action. Only single respondents took hormone-replacement therapy and very few had physical exercise and/or used various types of vaginal devices. Such a low percentage of women taking various preventive measures against urinary incontinence is undoubtedly due to their poor knowledge in this field. More than 70% of the respondents (217 women) did not know what Kegel exercise was and only 18% (52 women) admitted having practiced or still practicing this exercise. In the study by Gugala et al. [13], 34.6% of the female participants considered Kegel exercise useful. However, over 40% of their respondents confirmed the need for taking care of physical condition. High percentage of our study participants (75%) expressed the need for changes in the management of SUI prevention and rehabilitation, as compared to 60% noted by Gugala et al. [13]. Our respondents did not consider body weight reduction, alcohol consumption reduction, quitting smoking and elimination of constipations to be major factors in the disease prevention, although their significance has been confirmed by numerous studies [13-16]. This fact only highlights the existing deficits in health promoting education.

The analysis of our results revealed highly insufficient knowledge of the prevention and rehabilitation of SUI. More than 70% of the study participants did not take any preventive actions against the disorder. This problem demands greater

concern and involvement of medical and nursing staff in educational and informative actions [17, 18].

## CONCLUSIONS

1. Women suffering from SUI have poor knowledge of the preventive measures.
2. There is a need to intensify health promoting actions in the field of SUI prevention and rehabilitation.
3. The actions require more substantial involvement of nursing staff.

## Conflicts of interest

The authors declare no conflict of interest.

## REFERENCES

1. Bujnowska-Fedak M, Steciwko A. Postępy w leczeniu zachowawczym nietrzymania moczu. *Przew Lek.* 2007;2:101-7. (Polish)
2. Scemons D. Urinary incontinence in adults. *Nursing.* 2013 Nov;43(11):52-60.
3. Cerruto MA, D'Elia C, Aloisi A, Fabrello M, Artibani W. Prevalence, incidence and obstetric factors' impact on female urinary incontinence in Europe: a systematic review. *Urol Int.* 2013; 90(1): 1-9.
4. Fritel X, Ringa V, Quiboeuf E, Fauconnier A. Female urinary incontinence, from pregnancy to menopause: a review of epidemiological and pathophysiological findings. *Acta Obstet Gynecol Scand.* 2012 Aug;91(8):901-10.
5. Terzoni S, Montanari E, Mora C, Destrebecq A. Urinary incontinence in adults: nurses' beliefs, education and role in continence promotion. A narrative review. *Arch Ital Urol Androl.* 2011 Dec; 83(4):213-6.
6. Zydek C, Miękoś E, Sosnowski M. Czynniki ryzyka występowania i zapobieganie nietrzymaniu moczu u kobiet. *Przeegl Menopauzal.* 2004;5:43-49. (Polish)
7. Kirenko J, Lew-Starowicz Z. Seks po uszkodzeniu rdzenia kręgowego. *Wyższa Szkoła Umiejętności Pedagogicznych i Zarządzania.* Ryki 2001. (Polish)
8. Wesnes SL, Lose G. Preventing urinary incontinence during pregnancy and postpartum: a review. *Int Urogynecol J.* 2013 Jun; 24(6):889-99.
9. Czaplicki M, Bablok L. Leczenie nietrzymania moczu u kobiet. *Nowa Med.* 2001;6:28-31. (Polish)
10. Newman DK, Cardozo L, Sievert KD. Preventing urinary incontinence in women. *Curr Opin Obstet Gynecol.* 2013 Oct; 25(5):388-94.

11. Ayeleke RO, Hay-Smith EJ, Omar MI. Pelvic floor muscle training added to another active treatment versus the same active treatment alone for urinary incontinence in women. *Cochrane Database Syst Rev.* 2013 Nov 20;11:CD010551.
12. Terlikowski R, Dobrzycka B, Kinalski M, Kuryliszyn-Moskal A, Terlikowski SJ. Transvaginal electrical stimulation with surface-EMG biofeedback in managing stress urinary incontinence in women of premenopausal age: a double-blind, placebo-controlled, randomized clinical trial. *Int Urogynecol J.* 2013 Oct; 24(10):1631-8.
13. Gugała B, Głaz J, Drelich A. Zapotrzebowanie na edukację w zakresie profilaktyki nietrzymania moczu u kobiet. *Prz Med Uniw Rzesz Inst Leków.* 2011;3:340-7. (Polish)
14. Seehusen DA. Treatments for urinary incontinence in women. *Am Fam Physician.* 2013 May 15;87(10):726-8.
15. Levy R, Muller N. Urinary incontinence: economic burden and new choices in pharmaceutical treatment. *Adv Ther.* 2006 Jul-Aug; 23(4):556-73.
16. Adamczuk J, Kraczkowski J, Robak J, Żurawska vel Dziurawiec K. Rola położnej a oczekiwania kobiet z wysiłkowym nietrzymaniem moczu. *Probl Hig Epidemiol.* 2011; 2(3):675-8. (Polish)
17. Blanchette KA. Exploration of nursing care strategies for the management of urinary incontinence in hospitalized women. *Urol Nurs.* 2012 Sep-Oct;32(5):256-9.
18. Terzoni S, Montanari E, Mora C, Destrebecq A. Urinary incontinence in adults: nurses' beliefs, education and role in continence promotion. A narrative review. *Arch Ital Urol Androl.* 2011 Dec;83(4):213-6.