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WOMEN'S KNOWLEDGE ABOUT INCONTINENCE

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Abstract

Introduction. Urinary incontinence (UI) affects about 17%-66% of women. It is not only a significant medical problem but also reduces the quality of life and may interfere with everyday functioning in society. The aim of the study was to determine the level of knowledge of women in different age groups have about urinary incontinence.
Materials and methods. The study involved 100 women aged 21-80 (M = 48.4; SD = 17.36; Me = 45.5) from the Ełk district in the Warmian-Masurian Voivodeship. The study used the diagnostic survey method, and the research tool was an original research survey on women's knowledge about incontinence. The survey consisted of 39 open-ended and closed-ended questions.
Results of the study. 85% of women came across the term UI, 13% of women – had not. The subjects made a self-assessment in terms of their knowledge of UI (Fig. 2). 43% of women indicated that they had sufficient knowledge about UI, slightly less, i.e. 39% considered their level of knowledge to be good. More than half of the respondents (57%) claimed that the shame associated with UI made it difficult to make a decision about treatment. As many as 90% of the respondents declared that they would like to broaden their knowledge about UI.
Conclusion. Women have a need to broaden their knowledge about UI. The scale of the problem related to incontinence is high. The subjects consulted UI with a doctor, but none with a physiotherapist.

Key words: women, health, knowledge

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Introduction

Urinary incontinence (UI) as defined by the International Continence Society (ICS) is any episode of uncontrolled loss of urine, whether or not it is caused by problems of a hygienic or social nature; it does not need to be documented by any objective tests. It is considered a social disease [1]. Urinary incontinence (UI) affects about 17%-66% of women. It is not only a significant medical problem, but it also reduces the quality of life and may interfere with everyday functioning in society. The disease is often associated with sickness, absence, or depression, and the costs associated with its treatment grow higher each year. Due to the aging of the population and the increase in the number of people with obesity, which contributes to the disease, it is important to educate women about the risk factors and prevention of UI [2].

The main assumptions of the study concerned the assessment of the level of knowledge about urinary incontinence and the impact of incontinence on women's quality of life:

- Women have insufficient knowledge about incontinence.
- The scale of the incontinence problem is relatively high.
- Women want to increase their knowledge of UI.
- Women suffering from urinary incontinence do not consult their doctor or physiotherapist about their problem.
- Most women with UI do not get treatment.
- UI does not concern only seniors, but also young women.
- Women's quality of life decreases due to UI.

The aim of the study was to determine the level of knowledge of women in different age groups about urinary incontinence.

Material and methods

The research project received a favourable opinion from the Senate Research Ethics Committee of the Łomza State University of Computer Sciences in Łomza (currently the Łomza State University of Applied Sciences). The study involved 100 women aged 21-80 (M = 48.4; SD = 17.36; Me = 45.5) from the Ełk region in the Warmian-Masurian Voivodeship. The study was conducted in 2021. Participation in the study was voluntary and was anonymous in accordance with the Personal Data Protection Act of May 10, 2018. (Journal of Laws No. 18 item 1000). Table 1 presents descriptive statistics of anthropometric indicators of the study group.

Table 1. Self-Efficacy Scale form [15]

Parameter	*M*	*SD*	*Minimum*	*Maximum*
Age [year]	*48.4*	*17.36*	*20*	*80*
Body high [cm]	*164.9*	*7.07*	*150*	*187*
Body mass [kg]	*69.18*	*14.38*	*45*	*103*
BMI	*25.345*	*4.58*	*18.03*	*37.47*

It was observed that 67% of women came from the city and 33% from the countryside. 40% of the respondents completed secondary education, the fewest only completed primary education (8%). The number of vocational and higher education graduates similar, 27% and 25%, respectively. About 50% of the respondents were married women, 32% of the respondents were widows, 14% single, while the smallest group were divorced women (4%). While 42% of the surveyed women were professionally active, 34% were pensioners, 18% - unemployed women, and 6% - schoolgirls/students. The study used the diagnostic survey method as the research tool which included an original survey on women's knowledge about incontinence. The survey consisted of 39 open-ended and closed-ended questions. The questionnaire consisted of 1) a record part, i.e.: age, weight, height, place of residence, education, marital status, professional situation, and type of work performed, 2) a part concerning the knowledge about urinary incontinence, and 3) a part concerning incontinence itself. The obtained results were subjected to statistical analysis. Statistical description methods and methods of assessing the significance of differences between the compared groups (Chi2 test of independence) were used. The significance level of differences was $p<0.05$.

Results

It was observed that 85% of women knew the term UI, 13% of women did not. Only two women were unsure whether they knew the term UI. Those respondents were 43 and 33 (Fig. 1).

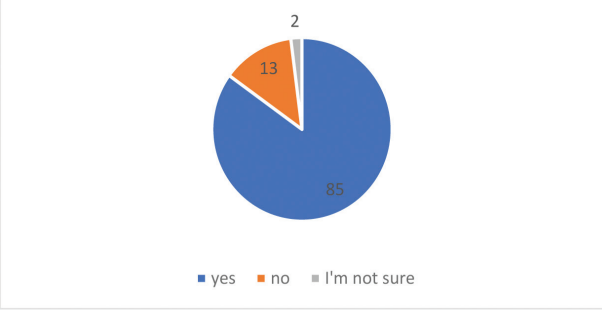

Fig. 1: Knowledge of the term UI of the surveyed women

The chi-square test was used to examine the relationship between age and knowledge of the term UI. The null hypothesis was that age does not affect knowledge of the term UI. Alternative hypothesis: age influences knowledge of the term UI. The results are presented in Table 2.

Table 2: Value of summed calculations - chi squared

Age	*Yes*	*No*	*Probably*	*Sum*
20-34	*33.64*	*11.22*	*0.9*	*45.76*
35-49	*007*	*0,33*	*0.04*	*0.44*
50-64	*0.04*	*0.07*	*0*	*0.11*
Above 65	*0.88*	*0*	*0*	*0.88*
Sum	*34.63*	*11.62*	*0.94*	***47.19***

Chi square : 47.19 > 12.59 (theoretical value, df=3*2=6). There was a relationship between the features, i.e. age influenced the knoweldge of the term UI.

The subjects made a self-assessment in terms of their knowledge of UI (Fig. 2). 43% of women indicated that they had sufficient knowledge about UI, slightly less, i.e. 39% considered their level of knowledge to be good. 14% said that they had insufficient knowledge on the subject, while only 4% of the respondents considered their level of knowledge to be very good.

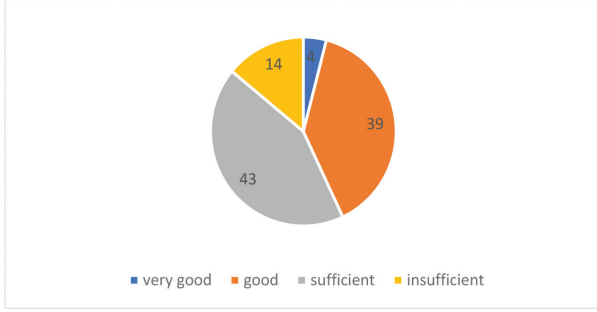

Fig. 2: Self-assessment of the respondents' knowledge about UI

The main source where respondents learned about the term was the Internet, chosen by as many as 66% of women. In second place were ex aequo a gynaecologist and friends/family, each with 53%. Newspapers/books and TV had similar results (26% and 23%). Only one respondent indicated school as a source of knowledge. 72% considered the problem with urinary incontinence at an average level, 20% considered the scale of the problem as high, while a small group, only 8%, considered the scale of the problem to be small. According to the respondents, the risk factors for urinary incontinence include: difficult childbirth (72%), old age (69%), and a large number of deliveries (66%). 54% of women indicated states of increased intra-abdominal pressure and urogynaecology/gynaecological procedures. Less women selected factors such as: frequent urinary tract infections (32%), menopause (14%), neurological diseases (11%), diabetes (8%), bedwetting in childhood (3%) and stress (1%), (Fig. 3). More than half of the respondents (68%) stated that UI can be prevented. 24% of the respondents were undecided, and 8% decided that UI could not be prevented. 81% of the respondents claimed that there are ways to treat UI, 2% that there are none, while 17% of the respondents were undecided.

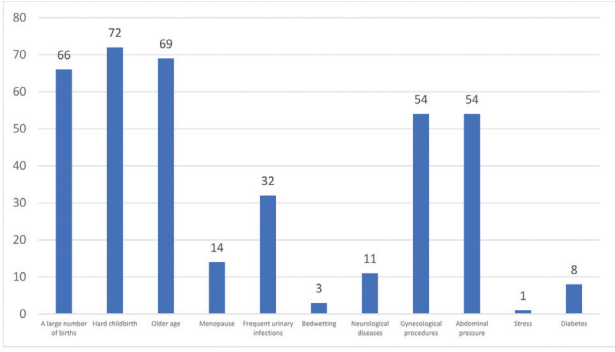

Fig. 3: UI risk factors according to the respondents

82% of women have heard of pelvic floor muscle exercises, while only 38% of them practice Kegel muscles. The relationship between training the pelvic floor muscles and the occurrence of UI has been demonstrated. Chi square =24.9063, degrees of freedom: 2, p:0.00000390546. The values in Table 3 are presented below.

Table 3: The relationship between training the pelvic floor muscles and the occurrence of UI [Chi square values]

	Yes	No	I don't know
Training	0.695402	3.75773	8
UI	0..695402	3.75773	8

More than half of the respondents (57%) claimed that the shame associated with UI made it difficult to make a decision about treatment. 90% of the respondents stated that they would like to broaden their knowledge about UI (Fig. 4).

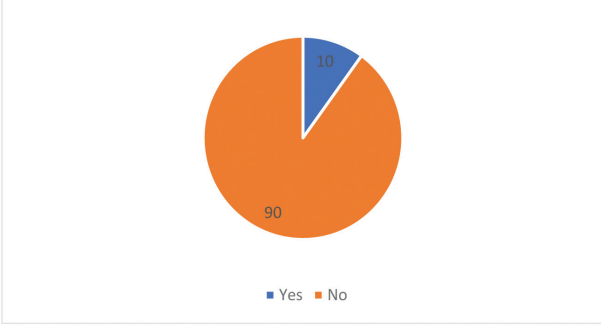

Fig. 4: Women's interest in expanding their knowledge of UI

In turn, 49% of women reported urinary incontinence, 35% denied having it, and 16% of the respondents did not know whether they had UI (Fig. 5).

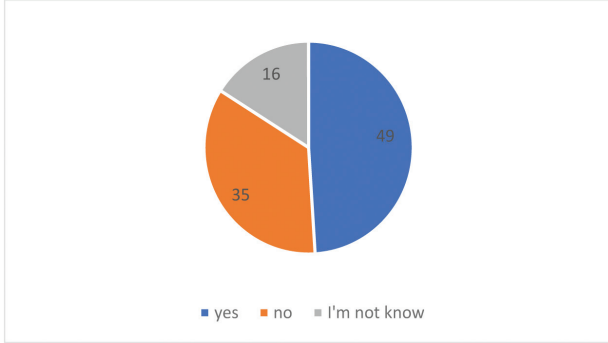

Fig. 5: Prevalence of UI in surveyed women

70% of women claimed to know the causes of urinary incontinence, while 30% admitted that they had no knowledge of the causes of urinary incontinence. When asked about situations in which urine leakage occurs, most women indicated that during sneezing, coughing, or laughing, and 25% - during exertion. 7% of women experience it continuously, while only 3% at night. 70% of women consulted their problem with urinary incontinence with a doctor, and the remaining 30% did not consult a doctor. 100% of women unanimously indicated that they had not consulted a physiotherapist about UI .

45 (75%) women believed that their attractiveness decreased due to UI. 11 women (18%) still felt attractive. 2 (4%) women believed that it did not apply to them, and 2 (3%) respondents refused to answer this question (Fig. 6).

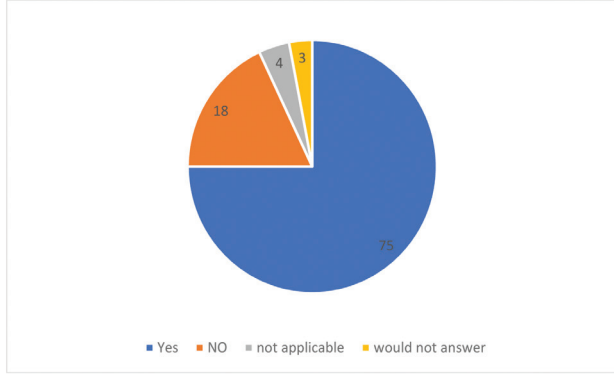

Fig. 6: Decrease in the attractiveness of women with UI

Discussion

The main problem addressed in the study was the assessment of women's knowledge about incontinence. The research showed that women in the Warmińsko-Mazurskie voivodeship had little knowledge about urinary incontinence, and at the same time 90% were willing to learn about it.

In their own research, women assessed their knowledge about incontinence as follows: the majority, i.e. 43%, assessed their knowledge as sufficient, slightly less good, and 14% of women believed that their knowledge was insufficient. Four respondents believed that they had very good knowledge about urinary incontinence. On the other hand, in the studies of

Połocka-Molińska et al., the respondents most often assessed their knowledge as good (39%) and very good (18%). The smallest percentage of women (13%) indicated very little knowledge [3]. On the other hand, in the studies of Cichońska et al. it was found that only 18% of the respondents had extensive knowledge about urinary incontinence, and 30% indicated little knowledge [4]. In the study by Drewiecki et al., more than half of the respondents indicated that access to information on urinary incontinence in Poland is difficult [5]. However, in the study by Gugała et al., 90% of the respondents were of this opinion [6]. 49 out of 100 women in the Ełk district suffered from UI, while according to the report from 2019, in Poland, 4-8% of the population suffered from this disease, i.e. approx. 2.8 million regardless of age and gender, while 303 million women worldwide suffer from [7], which makes it a social disease according to the WHO. Looking at the percentage of women who struggle with urinary incontinence, the scale of the problem in Poland is large. The respondents from the Ełk district have a different opinion, because only 20 women considered the problem to be a significant one, and as many as 72 women considered it an average problem.

The problem of incontinence occurred not only in elderly women, but also in young women. More than 28% of women aged 20-40 suffered from UI [8]. Professor Wladimierz Baranowski and Doctor Artur Rogawski write in their work that: "The incidence of urinary incontinence in the female population increases with age 1.34 times every 5 years [9]. Urinary incontinence occurred in about 25% of women aged 14-21, in 44-57% of women aged 40-60 and in 75% of women over 75" [10].

Caucasian women have been found to have a shorter urethra, weaker pelvic floor muscles and a lower bladder neck than other races. The incidence of incontinence in Europe and the United States is similar. Singapore, Tunisia, Pakistan and Japan have a lower incidence of urinary incontinence.

The main source of information on incontinence was the Internet, where reliable knowledge is not always available. This subject is not discussed in Polish schools or in advertising spots. The only advertisement in Poland talking about urinary incontinence is „Tena", which advertises an intimate hygiene product and Uroconti, an association of UI patients, which brings together people with urinary incontinence. The association was founded in 2007. by a group of active people who want to help themselves and other patients struggling with this problem. They have 7 branches in Gdańsk, Łódź, Lublin, Kielce, Poznań, Warsaw and Wrocław [11]. In the USA, however, UI was a frequently discussed topic, there were advertisements, broadcasts describing treatment methods and famous people were involved in disseminating knowledge of the problem - e.g. American football quarterback Tony Romo of the Dallas Cowboys, who spoke openly about the problem [12].

Our own research shows that 70% of women consulted their doctor about the problem, despite the embarrassment that made it difficult to make a decision about treatment, while none of the respondents consulted a physiotherapist. A disturbing fact emerged from the „CoreWellness" social report, where as many as 45% of women suffering from urinary incontinence did not mention it to their doctor [13].

The causes of urinary incontinence include smoking, gynaecological surgeries, childbirth, hard physical work, chronic diseases with cough, old age diseases, old age, pharmacological treatment with diuretics, menopause, incorrect toilet habits and many other reasons. More than half of the respondents had an unhealthy BMI, mainly overweight and obese. Of which 60% of people who were obese or overweight suffered from urinary incontinence.

Leakage of urine during pregnancy when coughing, sneezing or laughing is a common phenomenon, as the enlarged uterus puts pressure on the bladder, but it is not normal. Urinary incontinence may occur after vaginal delivery due to the baby's weight, prolonged labour, use of forceps or vacuum extraction. Caesarean section does not prevent UI. During pregnancy, there is an increase in the level of relaxin, the high level of which causes the relaxation of tendons, ligaments and muscles, including the pelvic floor muscles, and in particular the pubococcygeal muscle, which can cause UI. Our own research showed that out of 86 women, 44 suffered from urinary incontinence, while 34 of the 56 women who had a difficult or operative delivery suffered from urinary incontinence. The 82% of women have heard about Kegel exercises, while only 38% of them practiced. Dagna Kocur received different results in her research work in 2016. She examined a group of 726 women and only half of them exercised their muscles [14]. My own research showed that there is a correlation between Kegel exercises and incontinence. In the study by M. Zbrzeźniak, almost 60% of patients who diligently performed Kegel exercises showed improvement in UI [15]. Although as early as 1948 Arnold Kegel used pelvic floor muscle exercises as an effective method of treating stress urinary incontinence(SUI), a large number of women had heard of but did not exercise the muscles. Exercise is not only done to heal, but also as a preventive measure. Prevention is very important, because by conscious action we can prevent the occurrence of the disease. That is why it is so important to pay attention to lifestyle, diet and try to eliminate UI risk factors.

Physiotherapy professor Chantal Dumoulin from Mantreal et al. conducted a 7-year follow-up of postpartum women with persistent SUI in the 3rd month after delivery. The women participated in Kegel pelvic floor muscle training according for 8 weeks. After 7 years, 35 (61.4%) women agreed to continue the study. They were asked to perform a pad test and 3 questionnaires: UDI-16, IIQ-26 and VAS 10. After 7 years, 14 out of 26 (53%) participants were still incontinent [16].

43% of women believed that they felt less attractive because of UI, while in the study by Radziszewski et al. only 25% of 855 women believed that their self-esteem had decreased [17]. Ogórek-Tęcza wrote about negative feelings related to the disease, where she mentioned anger, shame and depression [18]. 45 women with UI considered themselves less attractive to the opposite sex because of the disease, while in the study by Radziszewski et al. more than half (53%) of women considered themselves attractive despite the disease [17]. Research shows

that UI is associated not only with anxiety and embarrassment, but also with the lack of orgasm despite sexual arousal. There are no medical indications for women with urinary incontinence to give up sex. The problem and blockage should be seen in the woman's psyche. Therefore, it is important to talk honestly with one's partner and work on self-perception, work on oneself and choose the right sexual positions so as not to irritate the bladder. To minimize the pressure on the lower part of the woman's abdomen and to control the condition of the bladder more easily, appropriate positions should be performed, such as: riding position, side position, back position. Dr. hab. n. med. Bartosz Dybowski from the Urology Department of the Railway Hospital in Pruszkow believes that urine leakage may occur when the anterior vaginal wall is strongly stimulated. This is explained by the position of the bladder in relation to the vagina. He also believes that all positions where the man is behind his partner's back strongly stimulate the anterior vaginal wall. He lists the clastic position, the so-called „missionary" position, as a position in which there is no high risk of leakage of urine from the urethra [19]. By exercising the pelvic floor muscles, i.e. the so-called Kegel exercises, they have a positive effect on a woman's sexuality. It has a positive effect on libido, achieving orgasm, improving satisfaction, and reducing pain. The most effective method of treating severe UI is to undergo a suburethral sling procedure. How the surgeon implanted the tape determines how an orgasm is felt. Nevertheless, slightly better results were observed after obturator implantation than after transobturator implantation [20]. In the health care system, intimate hygiene products such as diapers, pampers, inserts are reimbursed by the National Health Fund only when the patient suffers from urinary incontinence as a result of cancer, neurological or damage to the urinary tract [21, 22]. In Poland, 200 million PLN is spent on absorbent materials, and the other half is covered by patients. A large number of them can be qualified for surgical treatment. Patients do not decide on such a solution due to the difficult access to a specialist nor the lack of appropriate centers specializing strictly in the treatment of these cases. The annual cost of drug reimbursement is approximately 12 million PLN, of which a large percentage of patients pay themselves, which causes them to discontinue treatment due to the high cost, while in the USA the annual cost is approximately 300 million USD[23].

It should be noted that a visit to a urogynecological physiotherapist is not reimbursed in any way, as in some European countries, and the waiting time to the urological clinic in Ełk at the National Health Fund is 123 days, while in the nearest city - Giżycko - 216 days [24]. In Belgium or the Netherlands, every woman after childbirth is allowed 10 visits to a perineal prophylaxis therapist [25].

Conclusions

1. Women declared the need to broaden their knowledge about UI.
2. It was found that the scale of the problem related to incontinence is high.
3. The research revealed that the respondents consulted a doctor about UI, but none consulted a physiotherapist.
4. Shame makes it harder to decide to start treatment for UI, and women felt less attractive because of UI.
5. It has been revealed that knowledge about incontinence increases with age.

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