

Analysis of the Prevalence of Urinary Incontinence in Women Living in a Rural Commune

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Abstract

Introduction:

Urinary incontinence (UI) is one of the most common chronic diseases in women. It is estimated that around 17%-60% of women of different ages are affected in Poland [1,2]. Urinary incontinence involves an involuntary leakage of urine from the urethra in conditions associated with an increase in intra-abdominal pressure, e.g., during coughing, exertion or sneezing, and affects women twice as often as men [3].

Research Aim:

Analysis of the prevalence of urinary incontinence in women living in a rural commune.

Materials and Methods:

The group of research participants comprised 130 women, randomly selected and living in a rural commune in Wielkopolska Province. The respondents completed an anonymous survey containing 31 questions about urinary incontinence. The study was conducted at the patients' houses, during appointments, and in a PHC nurse's office.

Results:

The group of patients subjected to the study comprised 130 women of different ages. The most numerous group, 46.2% (n=60), consisted of women aged 30 to 60, 29.2% (n=38) were women over 60 years of age and 24.6% (n=32) were those under 30 years of age. From among the female population surveyed, urinary incontinence occurred in 50.7% (n=66), whereas 49.3% (n= 64) did not experience any UI.

While analyzing the results regarding uncontrolled urinary incontinence, the researchers found that it had lasted for over 4 years in 22.3% (n = 29), from 3 to 4 years in 13.8% (n = 18), from 1 to 2 years in 10% (n = 13) and under a year in 4.6% (n = 6). The study showed a relationship between the occurrence of UI and selected variables such as age, BMI, and number of deliveries.

Conclusions:

- Urinary incontinence is common among the female population being studied, which confirms the thesis of a "silent epidemic".
- The factors predisposing to the occurrence of urinary incontinence among the women surveyed include age, BMI and the number of deliveries.

Introduction

Urinary incontinence (UI) is one of the most common chronic diseases in women. It is estimated that around 17%-60% of women of different ages are affected in Poland [1,2]. According to the definition developed by the International Continence Society, urinary incontinence refers to an episode of any uncontrolled loss of urine that is objectively demonstrable and also presents a hygienic and

social problem [4]. The intensity of the symptoms may vary from leaking a small amount of urine during coughing, sneezing, or doing activities to passing urine when sitting, or even being unable to hold it when the bladder is full. Due to the individual nature of its symptoms and their burdensomeness in everyday life, urinary incontinence adversely affects the psychophysical sphere of women, often causing functioning disturbances and reducing women's

quality of life [5]. Clinical forms of urinary incontinence include: stress urinary incontinence, urge urinary incontinence, continuous urinary incontinence, mixed urinary incontinence, extra-urethral urinary incontinence and other types of urinary incontinence [6].

Research Aim

The aim of the research paper was to analyse the prevalence of urinary incontinence in women.

Materials and Methods

The group subjected to the study consisted of 130 women, randomly selected and living in a rural commune in Wielkopolska Province. In order to participate in the survey, an oral consent of the respondents, over 18 years of age and a properly completed questionnaire were required. The research study was conducted at the patients' houses, during appointments, and in a PHC nurse's office. The research work was done between January and March 2019.

To analyse the findings, the researchers used the IMP 14.2 program. Comparison of differences between the tested variables was made by means of FISHER'S EXACT TEST for 2x2 systems, while for the ones larger than 2x2 CHI SQUARE X2 TEST was used. The tested variables were statistically significant when $p \leq 0.05$.

Results

The group of patients subjected to the research study comprised 130 women of different ages. The most numerous group, 46.2% (n=60), included women aged 30 to 60, while women over 60 years of age constituted 29.2% (n = 38) and those under 30 years of age accounted for 24.6% (n = 32). From among 130 women surveyed, 60% (n=78) were professionally active. Among working women, 31.5% (n=41) performed manual tasks and 29.2% (n=38) did mental work. The analysis of the value of BMI showed normal body weight in 40% (n=52), underweight in 3.0% (n=4), overweight in 40% (n=52) and obesity in 16.9% (n=22) of the subjects. As regards obstetric history of the respondents, 28.4% (n=37) did not give birth, 21.5% (n=28) gave birth once, 27.7% (n= 36) gave birth twice, 22.3% (n=29) gave birth 3 or more times, as illustrated in Figure 1.

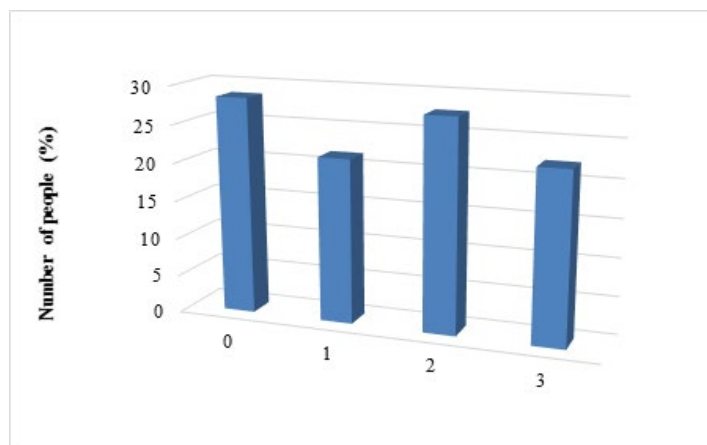


Figure 1: Number of Deliveries

Apart from birth rate, the researchers also analysed the course of labour. For the majority of the women, 64.6% (n=84), the labours ended naturally, and for 13.6% (n=18) was completed by caesarean section (Figure 2).

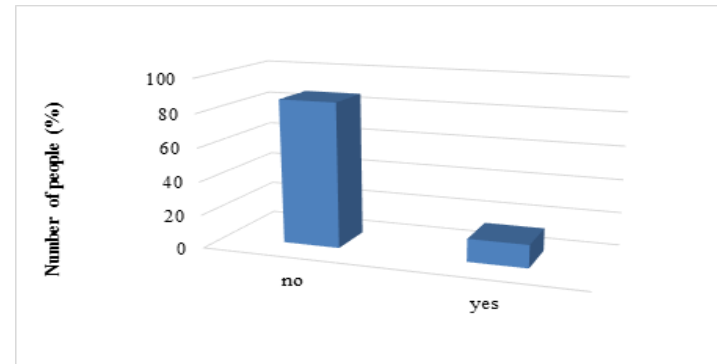


Figure 2: Number of Deliveries Completed by Caesarean Section

From among the female population surveyed, urinary incontinence occurred in 50.7% (n=66), while 49.3% (n= 64) did not experience UI.

When analysing the responses regarding uncontrolled urinary incontinence, the researchers found that it had lasted for over 4 years in 22.3% (n = 29), from 3 to 4 years in 13.8% (n = 18), from 1 to 2 years in 10% (n = 13) and under a year in 4.6% (n = 6).

In the women surveyed, the incontinence episodes (Figure 3) were most frequent during sneezing and laughing, 84.6% (n = 110), followed by 83.1% (n = 108) during heavy physical work, 41.5% (n = 54) during light physical work, 10.8% (n = 14) while running, 29.2% (n = 38) while walking the stairs, 10.8% (n = 14) after getting out of bed, and in 4.6% (n = 6) urine was leaking all the time.

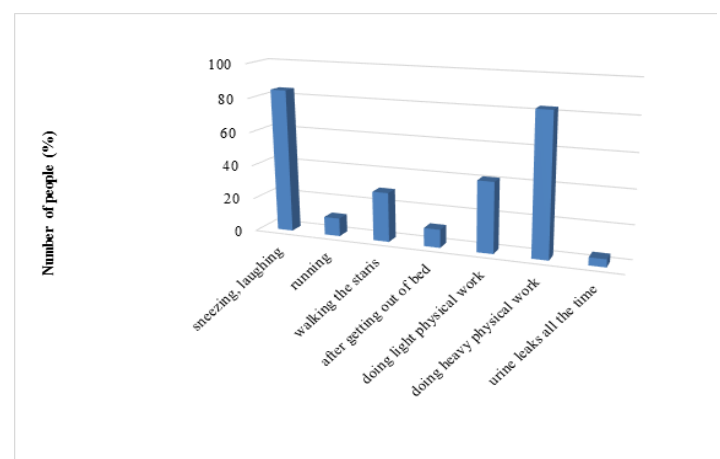


Figure 3: Situations Contributing to the Prevalence of Urinary Incontinence

The study has shown a relationship between the occurrence of UI and selected variables such as age, BMI, number of deliveries (Table 1).

Table 1: Occurrence of Urinary Incontinence in the Female Population Compared With Age, BMI and the Number of Deliveries

IU occurrence / variable	Chi Square X ²	P	Chi Square for cell X ²
Age	70,565	<0,0001*	16,3760
BMI	27,336	<0,0001*	6,7555
Number of deliveries	32,886	<0,0001*	8,7084

Overview and Discussion

Urinary incontinence in women, with underlying causes being factors predisposing to its occurrence [7,8,9], is an interdisciplinary problem and the subject of interest to many researchers [7]. The analysis of the reported complaints allowed the authors of the study to determine a urinary incontinence risk group on the basis of 50.7% of the respondents. This number differed slightly from the results obtained by Rabiej, where the problem of urinary incontinence was found in 60% of patients [10]. In the presented material, the urinary incontinence episode occurred most often, in 84.6% (n = 110), during sneezing and laughing, in 83.1% (n = 108) during heavy physical work, in 41.5% (n = 54) during light physical work and in 10.8% (n = 14) while running. Other Polish researchers achieved similar results in their work [2,11,12].

The presented study showed that the age of patients is an important factor affecting the occurrence of urinary incontinence. Research conducted by Menezes in England found that 20% of women over 40 have a problem with urinary incontinence [13]. Ge et al. came to similar conclusions in their studies, indicating that the problem of urinary incontinence increases in women with age, thus, stress urinary incontinence was experienced more frequently in the group from 50 to 69 years of age of the surveyed women, whereas in those over 70 years of age the other types occurred [14]. Similar results regarding the dependence between urine incontinence and age were obtained by other Polish authors [3,11,15]. Another parameter subjected to analysis was body weight. As both Polish and foreign researchers point out, there is a dependence between urinary incontinence and body weight [5,10,16,17], which was also confirmed by the present research study. According to research done by Wróbel et al, symptoms of urinary incontinence are more common in women who are overweight and obese [10]. This dependence was also confirmed by Mishr et al. in their studies of 20-year-old women [18]. One of the most important factors predisposing to the occurrence of urinary incontinence is a spontaneous vaginal delivery. The findings obtained in the present study are similar to those presented by most authors. Given the fact that 20 % of women after giving birth lose urine during exertion, Pisarska – Krawczyk emphasized in her research paper that natural childbirth can predispose to the occurrence of stress urinary incontinence [19,20].

The vast majority of Polish and foreign authors confirm a positive correlation between the number of births and the prevalence of urinary incontinence [12,13,21].

Conclusions

- Urinary incontinence is common among the female population being studied, which confirms the thesis of a “silent epidemic”.
- The factors predisposing to the occurrence of urinary incontinence among the women surveyed include age, BMI and the number of deliveries.

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