

Quality of life of urinary incontinent women

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ABSTRACT

Introduction: Urinary incontinence in women, in reference to the International Continence Society, is defined as an involuntary, uncontrollable, unwitting leakage of urine causing significant hygienic problems as well as physical and social discomfort.

Purpose: To identify the major health problems of urinary incontinent women, the estimation of life quality determined by health in the aspect of physical and psychological existence, social interaction and environment influence, and to evaluate the patient's agility and coping abilities in everyday life.

Material and methods: The study was carried out at J. Sniadecki District Hospital and Medical University of Białystok Clinical Hospital in 2012. The study included 107 urinary incontinent women, and 93 continent women formed the control group. The World Health Organization Quality of Life (WHOQOL-BREF) and King's Health Questionnaire (KHQ) were used.

Results: The evaluation of general satisfaction from the quality of life and health satisfaction carried out in the examined group shows

significantly worse values as compared to the healthy group of women ($p=0.02$ and $p=0.003$, relatively). Moreover, the group of women examined as compared to controls is characterized by significantly lower average results of the subjective estimation of the quality of life in the following aspects: physical ($p=0.001$), psychological ($p=0.03$), environmental ($p=0.004$), and social relations ($p=0.002$). A significant inverse correlation between the influence of an illness on particular aspects of existence taken into account in the KHQ questionnaire and the life quality level measured by the WHOQOL-BREF questionnaire was demonstrated.

Conclusions: Women with urinary incontinence had lower scores of life quality. Urinary incontinence among women decreases physical activity and negatively affects their psychological and emotional conditions, as well as their professional and social activity.

Key words: Quality of life, urinary incontinence, questionnaire WHOQOL-BREF, questionnaire KHQ

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INTRODUCTION

Urinary incontinence (UI) in women, in reference to ICS (International Continence Society), is an involuntary, uncontrollable, unwitting leakage of urine causing significant problems of hygienic nature, as well as physical and social discomfort. It concerns particularly women and it is qualified as a social problem as it affects the significant part of the population [1]. Urinary disorders are admitted, in reference to various reports, by 17% to 60% of women all around the world. Intimate and shameful nature of UI determines women not to admit having problems with urination what results in false estimation of the scale of such a phenomena [2]. It was demonstrated that the frequency of urination disorders occurrence grows with patient's age simultaneously. The majorities of women recognize that problem as a result of the body becoming older and therefore, ignore it [3, 4]. UI problem, however, exists in every age group, both, elder women as well as very young ones [5, 6].

Urinary incontinence at young women can be of transient nature caused by different anatomical changes taking place, and hormonal influence induced by pregnancy. Changes taking place in the urinary system during pregnancy, as well as in relation to labour, can persist longer than expected and therefore need treatment. Multipara are predisposed to UI, however, this problem is also actual among women who gave birth only once [7, 8].

The aim of this study was to identify the major health problems of urinary incontinent women, the estimation of life quality determined by health in the aspect of physical and psychological existence, social interaction and environment influence, and to evaluate the patient's agility and coping abilities in everyday life.

MATERIALS AND METHODS

The study was carried out at J. Sniadecki District Hospital and in the Medical University of Białystok Clinical Hospital, in 2012. The study included 107 urinary incontinent women and 93 continent women who formed a control group. The evaluation of quality of life took place by the use of the standardized questionnaires: The World Health Organization Quality of Life (WHOQOL-BREF) and King's Health Questionnaire (KHQ) [9-11]. WHOQOL-BREF questionnaire evaluates the quality of life and health perception in different aspects of life: somatic, Psychological, social and environmental, in relation to a particular disease entity.

Questionnaire of urinary incontinent women life quality KHQ evaluates the influence of urinary bladder dysfunctions in women on the quality of everyday life, professional duties, family and social life, and assesses those problems impact on woman's psychological condition and self-confidence. Research was conducted after the Bioethical Committee at the Medical University of Białystok number R-I-002/193/2012 permission was obtained.

Creating questionnaires in the research part demanded using Statistica 10.0 PL programme (StatSoft, Poland). Quantitative variables distribution normality was verified by Kolmogorow-Smirnow test. Statistical characteristics of quantitative variables were presented in the form of arithmetic means and standard deviations (SD). Statistical characteristics of qualitative variables were presented in the form of numeric and percentage distributions. In inter-groups comparisons of quantitative variables values t-Student test for unrelated variables was used. In inter-groups comparisons of qualitative variables values chi-square test and precise Fischer's test were used. Strength and direction of the relation between pairs of quantitative variables were assessed on the basis of the value of Pearson linear correlation coefficient (r). As a statistically significant level $p < 0.05$ was accepted.

RESULTS

The study group consisted of 107 urinary incontinent women aged 29 to 64 (average 37 ± 12.8). The control group consisted of 93 continent women aged 21 – 59 (average 34 ± 10.3). In the study group, 76 (71%) women were married. As far as education is concerned women had: primary education - 22 (20.6%), vocational education - 29 (27.1%), secondary education - 20 (18.7%), and academic education - 36 (33.6%). The control group included 61 (65.6%) married women. As far as education was concerned women had: primary education - 8 (8.6%), vocational education - 22 (23.7%), secondary education – 28 (30.1%), and the university - 35 (37.6%). Among 107 women with urinary incontinence, 101 (94.4%) of them gave birth at least once. The control group included 64 (68.8%) women who gave birth at least once.

In comparison to the control group, urinary incontinent patients were characterized by significantly lower quality of life in every four aspects of life measured by WHOQOL-BREF questionnaire. Their average results were presented in Table 1.

Table 1. Quality of life evaluation by WHOQOL-BREF in the study and control groups.

WHOQOL-BREF	Study group		Control group		P-value
	Mean	SD	Mean	SD	
General questions (range 1–5)					
Satisfaction from general quality of life	3.7	0.8	4.0	0.6	0.02
Satisfaction from health	3.0	1.2	4.2	0.7	0.003
Aspects (range 4–20)					
Physical	15.8	2.9	17.6	3.4	0.001
Psychological	10.1	1.5	12.0	2.1	0.03
Social interactions	8.5	1.1	11.7	1.4	0.002
Environment	17.4	3.0	19.6	3.2	0.004

The evaluation of satisfaction from general quality of life, and satisfaction from health carried out in the study group shows significantly lower values as compared to healthy women ($p=0.02$ and $p=0.003$; respectively). Moreover, women from the study group in comparison to controls had significantly lower average results of the subjective evaluation of life quality in the aspect of physical

existence ($p=0.001$), psychological existence ($p=0.03$), environmental existence ($p=0.004$) and social interaction ($p=0.002$). In urinary incontinent patients, in comparison to the control group significantly higher influence of the illness on particular areas of existence evaluated on the basis of KHQ questionnaire was observed (Table 2).

Table 2. Illness influence on the particular areas of life evaluated on the basis of KHQ questionnaire.

KHQ	Study group		Control group		P-value
	mean	SD	mean	SD	
General evaluation of health	35.75	19.15	25.54	18.05	0.000
Influence on the quality of life	42.99	22.44	0.00	0.00	0.000
Limitations in everyday life	28.77	26.58	0.00	0.00	0.000
Physical limitations	33.33	26.10	0.00	0.00	0.000
Social limitations	15.47	19.65	0.00	0.00	0.000
Social interactions	19.74	27.19	0.00	0.00	0.000
Emotions	22.85	21.58	0.00	0.00	0.000
Dream and energy	28.50	21.11	0.00	0.00	0.000
Symptoms severity	46.18	20.87	0.00	0.00	0.000

Significant inverse correlation between the influence of an illness on particular areas of existence included in KHQ questionnaire, and the level of quality of life estimated by WHOQOL -

BREF questionnaire was shown. The higher the influence of the illness on patient's life in particular areas the more significant increase of their life quality took place (Table 3).

Table 3. Coefficients of Pearson linear correlation (r) between the results achieved with the use of KHQ and WHOQOL-BREF questionnaires.

Variable	Physical aspect		Psychological aspect		Social interaction		Environment	
	r	p	r	p	r	p	r	p
General evaluation of health	-0.5253	0.000	-0.4642	0.000	-0.2914	0.000	-0.4043	0.000
Influence on the quality of life	-0.3334	0.000	-0.3183	0.000	-0.34	0.000	-0.3532	0.000
Limitations in everyday life	-0.3534	0.000	-0.3411	0.000	-0.3065	0.000	-0.3438	0.000
Physical limitations	-0.3333	0.000	-0.2812	0.000	-0.2927	0.000	-0.3606	0.000
Social limitations	-0.3944	0.000	-0.4225	0.000	-0.3884	0.000	-0.3803	0.000
Social interactions	-0.3685	0.000	-0.3988	0.000	-0.3683	0.000	-0.3486	0.000
Emotions	-0.4896	0.000	-0.494	0.000	-0.3808	0.000	-0.4272	0.000
Dream and energy	-0.4496	0.000	-0.4168	0.000	-0.3234	0.000	-0.3464	0.000
Symptoms severity	-0.2526	0.000	-0.3186	0.000	-0.2471	0.000	-0.2711	0.000

DISCUSSION

In accordance to health definition created by WHO, researchers have been putting more attention to health-related quality of life (HRQL). Since many years the number of publications analyzing different aspects of diagnosis and treatment of urinary incontinence and quality of life of people suffering from it has been growing. The subjective estimation of the quality of life of urinary incontinent women depends on many factors, including experiencing different symptoms, physical agility, professional activity, awareness of life with an illness, social position and social support obtained. Urinary incontinence affects life activity, state of mind, and sexual behavior. Embarrassment and/or negative self perception in this context appears, as well as distance to professional, social and even family life [12 - 15].

The majority of symptoms concerning urinary incontinence can be evaluated on the basis of questionnaires analyzing symptoms and evaluating the quality of life. The term „quality of life” has become recently one of the more important terms in medicine and psychology. Quality of life is a very capacious and equivocal definition because it touches upon all possible aspects of life which ordinary people evaluate constantly due to their general tendency to value everything concerning them. In urinary incontinent women relation between the quality of life and the discomfort of symptoms and limitations it causes in everyday life is highlighted. The term “urinary incontinence” is perceived by women as a stigmatizing notion. Replacing it with “problems with urine leakage” causes more women admit to this problem [6, 7, 14].

The majority of studies concerning urinary incontinence touches upon the medical aspect of the disease – anatomical structure, need of operation, physical condition. Interesting is that with such a range of urinary incontinence problem, and despite symptoms that affect an intimate area of human life. As well as the necessity to cope with it psychologically, there are a few publications concerning that issue. Literature does not include reports which would follow the development of research conducted on urinary incontinence in the aspect of psychosocial ways of coping with the problem [1, 14, 15].

In modern urogynaecology more attention is devoted to the necessity of using unified, objective methods of taking history by means of questionnaires completed by patients on their own. It is supposed to improve the effects of treatment of the lower urinary system. It was decided that to analyze fully the symptoms of urinary incontinence patients should complete questionnaires which are truthful and reproducible. After translation to a

particular language the questionnaire should be estimated in terms of its suitability in the particular population, as symptoms influence on quality of life depends, among others, on cultural factors [16 – 28].

Our studies confirm that urinary incontinence evokes the feeling of shame and psychological discomfort in women. The interviewees admitted that symptoms occurrence affects their state of mind, does not allow to feel happy and satisfied from everyday life. It confirms other authors opinions [18, 19, 27].

Ogorek-Tecza et al. [29] put the attention to emotions accompanying patients when struggling with urinary incontinence. Women admit shame (25.6%). anger and sadness (17.4% each) and fear even (16.3%). Dutkiewicz et al. [30] confirm that urinary incontinence influences women’s mind causing strong discomfort. Their study shows that 66.6% of patients examined feel fear of clothes soaking. 65% feel shame and 16.7% feel fear of lack of control over urination. Urinary incontinent women admit that their condition constitute significant difficulty in everyday life, as well as in effective professional activity. Zielinska et al. [8] showed that 90% of urinary incontinent patients examined admitted that urinary bladder disorders seriously limit their life activity.

Ogorek-Tecza et al. [29] noted negative influence of urinary incontinence on professional activity in 46% of women examined. This discomfort makes professional activity more difficult and disorganized due to frequent urination. In 95% of the studied cases they showed limitations and/or difficulties concerning social life. Among interviewees, 56% of them took part in social meetings only few times a year while 34% few times a month.

Our study showed that discomfort caused by urinary incontinence affects sexual life and felling of womanliness. Similar results are presented by Ogorek-Tecza and coauthors, who showed that 43% of women examined confirm negative influence of urinary incontinence on sexual activity. The majority of them admitted avoiding intimate situations, 21% feels awkward during sex, 12% feels ashamed, 11% reports discomfort, and 5% nervousness. Symptoms of urinary incontinence in 56% of examined patients worsened relationship with a partner [29].

Bidzan et al. [31] claim that only part of urinary incontinent women assess their sexual life as non-satisfactory. This is the case when relationship with a partner is dissatisfying. The authors cited suggest that sexual life and existence of urinary incontinent women in intimate situations is more dependent on the quality of relationship with a partner than on the significance of symptoms concerning urinary incontinence. They claim that

the quality of sexual life depends also on the level of support provided by the life partner and the level of satisfaction from this relation.

In our study with the use of WHOQOL-BREF questionnaire, we found that urinary incontinent women in comparison to controls had significantly lower average results of subjective quality of life evaluation in the physical, psychological, social and environmental aspects. Bidzan et al. [31] showed lower quality of life either in the family aspect (the change of family lifestyle, lower sexual activity, home budget strain due to treatment and personal hygiene provision), professional aspect (professional plans change, professional life limitation, resignation from work) and social aspect (less social interactions, alienation). In the study carried out by Prazmowska and coauthors [32], it was confirmed that in urinary incontinent women over 45, their condition implies lower satisfaction from life in every analyzed aspect, meaning, physical activity, emotional condition, everyday work, social activity, pain felt, health changes, general evaluation of health, social support and quality of life. Dutkiewicz et al. [33] showed that among women with urinary incontinence over 50 years of age except for tendency to alienate in the society (avoiding family and social contacts) and lowered professional activity, there is a tendency to suffer from emotional disorders (feeling of fear and shame of clothes soaking).

CONCLUSIONS

1. Urinary incontinent women are characterized by lowered level of quality of life.
2. Urinary incontinence in women lowers their physical activity, affects their state of mind and emotional condition as well as professional and social activity.

Conflict of interest

The authors declared no conflict of interest.

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