

Impact of urinary incontinence on quality of life

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Abstract: Urinary incontinence (UI) is a relatively common condition in middle-aged and older women. Although it is not a life-threatening condition, UI negatively impacts health-related quality of life (QOL) by affecting daily living activities, sexual and interpersonal relationships, psychological well being and social interactions. Some studies also indicate that the social problems associated with UI grow with time, but it is not clear if that is a function of increasing severity of the condition, or the particular adaptations required for coping with this problem. In this article we evaluate recent scientific observations regarding the impact of UI in QoL.

Key words: Urinary incontinence; Quality of Life; Women.

Urinary incontinence is frequently associated with a negative impact of quality of life of the patient. It is not really a disease, but rather a symptom, as a result of either a bladder or sphincter disorder. Urinary incontinence is defined by the International Continence Society (ICS) as “involuntary loss of urine”. The symptomatology of incontinence may be subdivided into three categories: *a*) stress urinary incontinence, which is caused by “the involuntary loss by effort, exercise, sneeze or cough”, *b*) urge incontinence, which is the “involuntary loss of urine accompanied by or following a sudden compelling desire to void which is difficult to defer”, and *c*) mixed urinary incontinence, which is defined as “the involuntary urine loss accompanied by urgency and present by effort, exercise, sneeze or cough”.¹ Women are more prone to the condition than men. This is because the incidence for each type of urinary incontinence in females ranges between 10% and 58% while incidence in men is estimated to be between 3% and 11% depending on the population checked and the definition used for incontinence.²

Although it is not a life-threatening condition, urinary incontinence has a physical and psychological affect on the patients, while at the same time it charges them with an additional financial burden. According to the World Health Organization (WHO), health is defined as the “condition of total physical, emotional and social health and prosperity”, disproving the previous opinion of the absence, mostly, of disease or disability. Even though, the prevalence of urinary incontinence is similar to other chronic diseases, research with regards to its effect on the quality of life of the patients have started only recently in the last fifteen years. Researchers have designed, developed and suggested the use of various questionnaires which are completed by the patients themselves, whereby via the appropriate questions the degree of the effect of urinary incontinence on the patients’ health and generally on their quality of life is revealed, graded and evaluated more objectively.³

Urinary incontinence, in whichever form, sweepingly affects the life of the patients. It is conceived as a lack of health which generates feelings of anger and sadness, as well as embarrassment and depression. Patients avoid social gatherings and lose self-confidence, which has a proportional impact on their social interactions, their sexual life and emotional health.^{4, 5} Apart from the emotional repercussions, however, urinary incontinence is a risk factor for other physical conditions and diseases, while simultaneously being a financial burden on the patient and his or her family. In table 1, the physical, psychological and social impacts of the disease are summarized.

The ability of skin being a barrier between the internal and the external environment depends on its integrity, the presence of internal and external cellular lipids and its pH.

A disorder of its integrity or its histological structure, allows for the development of microbes such as staphylococcus. Secondary infection by *Candida albicans* is also frequent, which is also favoured by the humidity of the region. The contact of urine with skin also aids in the creation of paratrimma, as well as folliculitis. The perineal dermatitis or incontinence dermatitis refers to the dermatitis caused by urinary or fecal incontinence. It causes severe pain and inflammation in the vagina, the perineum and the buttocks. The increased humidity of the skin ultimately causes a mechanical damage. Erosions by friction are caused by half of the energy on wet skin than on dry skin. Therefore, urinary incontinence is a major risk factor for decubitus ulceration.⁶ Frequency, nocturia, urgency, as well as urge incontinence have also been shown to increase the risk of falls, which may lead to fractures and other morbidities.⁷

The direct relationship between urinary incontinence, stress and depression is already adequately documented. In a population study of 5701 women aged from 50 to 69 years old, Nygaard et al., discovered that women with severe urinary incontinence had an 80% greater possibility of presenting deep depression while women with incontinence

TABLE 1. – *Physical, psychological and social incidence of urinary incontinence.*

<i>Physical Incidences</i>
Bacterial infections
Fungal infections
Cellulitis, skin infections
Paratrimma
Decubitus ulcers
Falls and fractions
Sexual dysfunction
<i>Psychological Effects</i>
Stress
Depression
Loss of self-respect and self-confidence
Shame
<i>Social incidences</i>
Avoid of social events
Reduce personal activities
Social insularity
Loss of independence
Cost

of mild to average degree had 40% greater possibility of presenting depression.⁸ In another study, Mellville et al studied 218 patients with urinary incontinence and found that major depression and panic disorders very often correspond to women with urinary incontinence. In patients with urge or mixed incontinence the possibility is much higher for a psychological disorder to coexist. Coexistent severe depression significantly affects the degree in which the patient perceives incontinence, which is significant in altering quality of life and general functioning of the patient.⁹ In a third study in Baltimore, 5,024 patients were enrolled in order to identify the prevalence of overactive bladder symptoms and its effect on the quality of life. It was concluded that an overactive bladder, with or without incontinence, presents a clinically significant impact on the quality of life, on the quality of sleep and psychological health, both in men and women.¹⁰ In another prospective study of 82 women, the correlation between depression and incontinence is identified, especially in urge incontinence. While only 19.5% of women with effort incontinence report clinically significant depression, 44% of women with urge incontinence suffers from depression. In a recent mail study with 3,536 women, the incidence of depression appears to be analogous to the degree of incontinence, as well as to the degree of social isolation and quality of life.¹² Bogner et al showed that when urinary incontinence is severe enough, the incidence of a stress disorder increased by 4 times.¹³ Finally, a large and long-term study with 12568 women aged over 40 years, showed that stress and depression episodes may be predicted by the preexistent urge incontinence. In this study, 56.5% of those who answered reported intense and frequent stress, while 37.6% suffered from depression of severe degree.¹⁴ Recent guidelines recommend that women with medium and severe incontinence be screened for coexisting depression and to be treated accordingly.¹²

Heavy psychological issues in adults may sometimes have roots in continence status, urinary control and independence acquired during childhood. As children approach the age of 2 years, they recognize that they can control when they sleep, when and what they eat and when they urinate and thus they acquire a feeling of independence and personality. This important initial stage of development prepares the child for the life ahead. When, however, later in life incontinence is exhibited, this regression and loss of control may have serious consequences. Self-confidence is reduced by the disability to control the bladder and by matters such as cleanliness, which already contribute to the psychological problems. Often, too, this may be accompanied by alienation from family and friends and this may be additionally detrimental to the patient's self-confidence.¹⁵

The above studies all demonstrate that urinary incontinence is an obstacle in good physical and social well-being and consequently it is an obstacle to the patient's maintenance of general fitness. In a large European randomised study with 9487 women, more than 60% of them with medium to severe symptoms reported restriction in their activities, including physical exercise, due to a possible incontinence episode.¹⁶ Brown et al reviewed the information collected by more than 41000 women in the Australian Longitudinal Study on Women's Health (ALSWH) and found that more than 33.3% of women between the ages of 45 and 50 report that they avoid athletic activities fearing an incontinence episode during exercise.¹⁷ Finally, in an American study 3364 women were examined using the International Physical Activity Questionnaire (IPAQ). In this study, it was revealed that women with severe incontinence have 2.64 times greater possibility not to exercise, in comparison to continent women. Also, 85.3% of women with severe

incontinence consider their problem as being a chief obstacle to physical exercise, compared to the 64.5% of women with average incontinence.¹⁸ And of course, apart from the important psychosocial parameters, avoidance of physical exercise increases the risk for many other diseases, such as osteoporosis, hypertension, coronary heart disease, etc.¹⁷

Urinary Incontinence is related to reduced personal and social life and to reduced total quality of life. It may seriously affect sociability, and the social gatherings the patient attends are modified so that possible unpleasant moment and embarrassment by sudden loss of urine are avoided.¹⁹ Urge incontinence especially may have an especially intense and negative impact on the quality of life as it affects social presence, psychological mood, work environment, family surroundings and fitness and sexual life.⁵ Urgent incontinence affects healthy way of life than incontinence by effort, because a hyperactive bladder is harder to control, more often it will interrupt sleep or other daily activities and more possible may lead to loss of urine of more than 50 ml, as may occur in a typical episode of incontinence by effort.²⁰ Various ways and strategies that the patients' uses and more especially the avoidance of social activity due to possible "leak" may further affect health.²¹

The matter of incontinence is often just a reason for the loss of independence for elderly people. In a study, urinary incontinence is "incriminated" as a steady prediction factor either for hospitalization, either for being committed to an institution, with relative hospitalization risk 1.3 in women and 1.5 in men and relative institutionalization risk 2 and 3.2 respectively.²² Urge incontinence is also a predictor for institutionalization, with relative risk being 3.07 (95% CI 1,24-7,50) in comparison to 1.15 for the age (95% CI , 1,10-1,19) and 1.22 for depression (95% CI 1,27-3,21).²³

Also important, is the disorder caused by urinary incontinence in normal sexual function. Shaw in 2002 presented a review of articles in English language since 1980, whereby sexual dysfunction incidence, due to urinary incontinence ranged from 2% to 64%.²⁴ In an Austrian study, which evaluated incontinence by information gathered from questionnaires, it was found that from the total of patients who report urinary incontinence, 30.5% reports simultaneous sexual dysfunction, as a consequence of loss of urine.²⁵ In another study, which evaluated the impact of urinary incontinence in sexual function in premenopausal women, researchers discovered that urinary incontinence, both by stress and urge, significantly reduce sexual function in sexually active women, with patients reporting lower scores of desire, stimulation, lubrication of the vagina, orgasm and satisfaction, but not in pain.⁴ Salonia et al established 46% of 216 women, who were diagnosed with urinary incontinence with the use of questionnaires, physical and urodynamics examination, exhibited sexual dysfunction. Sexual dysfunction in these women, was diagnosed with the FSFI (female sexual function index). Of these women 34% reports loss of sexual desire, 23% difficulty in sexual stimulation and 11% complained about difficulty in orgasm.²⁶ In another multicentre study, with mailed questionnaires which concerned urinary incontinence after surgical operation for pelvic organ prolapse, Morgan et al. found that incontinence in these women was related to low possibility of sexual activity. Among sexually active women, the risk of sexual dysfunction was analogous to the degree of incontinence.²⁷

The total impact of urinary incontinence on quality of life was estimated in an Austrian study, which evaluated 2,498 women (mean age 49.7 years old) and 1,236 men (mean age 48.6 years old). It was discovered that 65.7% of the women and 58.3% of the men consider that the disorder was detrimental to their quality of life and indeed 18.3% and 16.6%

stated that the detriment was average to grave. Additionally, this detriment was correlated statistically significantly both with the degree and the incidence as well as with the number of pads and other urine collection devices. The impact on way of life is multi-factored causing problems in social activities, in maintaining a good physical exercise though sports and in assurance of independence.²⁵

Kelleher et al designed and created the King's Health Questionnaire (KHQ) a questionnaire of 21 points to estimate the quality of life of women with urinary incontinence. In the initial evaluation it was discovered that the great majority of women, in spite of the urodynamic findings, felt that incontinence affected their quality of life negatively, with incidence of 66.6% among women with mixed type incontinence up to 81.2% among women with hyperactive detrusor. The most frequent complaints were irritation by humidity, smell and the need to wear pads, change their wet underwear regularly, restrict their fluid input and avoid specific clothes.²⁸

CONCLUSION

The destructive consequences of urinary incontinence to the psychology and the sexual and social life of the patients, in combination with the significant financial impact on the society, requires a change in the way of thinking with regards diagnosis and treatment of this quite wide-spread disorder. And even though full continence is not always feasible, important improvement may usually be achieved in most patients, so that a normal way of life can be maintained.

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