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Vulnerability to stress and quality of life of women with urinary incontinence

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Abstract

Female urinary incontinence is a common condition with a relevant impact in the quality of life. The treatment is now possible for a significant number of cases. The purpose of this study is identify the quality of life of women with urinary incontinence and analyse the influence of vulnerability to stress and the impact of incontinence on quality of life. This is an exploratory and correlational study, with 200 participants suffering from incontinence who reported urine loss at least once a week in the previous 3 months. The data collection protocol was a questionnaire which allowed for the socio-demographic characterization of the sample. It included the scales of impact of urinary incontinence (UCIQ-SF), KHQ and vulnerability to stress (23 QVS). The average age is 58.42 years (sd = 11.52). The sample presents a moderate quality of life in all areas. Predictor factors of overall quality of life are urge urinary incontinence, the dramatization of existence and deprivation of affection and rejection concerning the vulnerability to stress. Given the results, it is important to alert the female population for the prevention of urinary incontinence, due to the negative impact on quality of life and as a limiting factor in the activities of daily living.

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1. Introduction

The International Continence Society (ICS) defines urinary incontinence (UI) as a condition where the involuntary loss of urine is a social or hygienic problem and is objectively demonstrable. It can be classified in three

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types: Stress Urinary Incontinence (SUI), when effort, exercise, sneezing or coughing cause involuntary leakage; Urgency Urinary Incontinence (UUI), characterized by a complaint of involuntary leakage accompanied by, or immediately preceded by, urgency; and Mixed Urinary Incontinence (MUI), when there is a complaint of involuntary leakage associated with urgency and also with effort. (Borba & Bretas, 2008). The most prevalent type is SUI, followed by UUI, particularly during the perimenopausal period. Prevalence can vary between 12 and 56% depending on the population studied and the criterion used for diagnosis (Rett et al., 2007).

UI is considered as one of the new epidemics of the 21st century, exacerbated by the increase of the average life expectancy, and occurs more frequently in women (Botelho, Silva & Cruz, 2007). It is a socially important disease since it has a negative impact on the quality of life, hygiene and sexual activity.

Among the causes of UI, the following stand out: Obstetric factors (number of pregnancies and deliveries, episiotomy, perineal lacerations, instrumental deliveries, weight of the newborn) Chiarapa, Cacho and Alves (2007); Dellú, Zácaro and Schmitt (2008) and Moreno (2004). Gynecological factors (time of menopause, hormone replacement therapy, gynecological surgery, surgical access route (abdominal or vaginal) Chiarapa, Cacho and Alves (2007) and Moreno (2004). Hereditary factors (race, family history of UI) Higa, Lopes and Reis (2008). Behavioral factors (smoking habits, alcoholism, caffeine intake, physical exercise, body weight fluctuations, constipation) Higa and Lopes (2005); Higa, Lopes and Reis (2008) and Caetano, Tavares and Lopes (2007). Anthropometric factors (body mass index, waist circumference) Higa and Lopes (2005) and Higa, Lopes and Reis (2008). Physical factors (pelvic floor, vulva-anus distance, use of lumbosacral joint, tonus of the fibrous nucleus of the perineum, symmetry of bilateral pelvic floor fascia, prolapse) Bernardes et al. (2000) and Moreno (2004).

In literature, there is a general agreement that UI has a negative impact on the quality of life, with implications on the psychological, social, physical and economic spheres, as well as on personal and professional relationships, and can even represent a motive of social isolation, low self-esteem, vulnerability to stress and depression (Higa & Lopes, 2005).

However, most women don't consider UI as a health condition or they considered it as a natural process related to aging, having adapted to it in their daily lives, which could be explained by a lack of information.

There is no human being free of facing stress-inducing circumstances. Sometimes, stress can act as an incentive factor while in other times, it can cause personal distress. Vaz Serra (2000) defines vulnerability to stress as an increased risk to react repeatedly in the presence of a given life event. In the author's opinion, an individual vulnerable to stress has specific characteristics, such as low self-assertion, low tolerance to frustration, difficulty in dealing with problems, excessive concern for everyday events and marked emotions.

Stress-inducing circumstances involve qualitative and quantitative aspects, and the factors that determine predisposition to stress include personality, self-esteem, self-confidence, social support, physical resistance, health and the ability to deal with it (Vaz Serra, 2000). Other stress-inducing factors can be of physical nature (life habits, climate, environment), psychological (grieving or suffering, or joy and contentment) and social (family or professional environment).

Given that UI sufferers progressively face changes in their everyday life, subsequent to the loss of urine, we can say that they live in constant stress when exposed to unexpected situations. Therefore, vulnerability to stress and engaging in coping strategies differ from one individual to another, making it easier or harder to adopt behaviors that help them to overcome the difficulties associated with UI.

Although UI is not a life-threatening condition, it has an impact on health, resulting in a higher predisposition to stress. European, North-American and Brazilian studies demonstrated important stress scores in women with UI, in different age groups. Social discomfort comes from the fear of urinary loss, the smell, the need to use absorbent pads and to change clothes frequently, predisposing the woman to a high level of stress. Irritative symptoms (nocturia and urinary urgency) also disrupt sleep, leading to fatigue, stress and depression.

In view of the above, we asked ourselves, how can vulnerability to stress influence the quality of life in women with UI?

2. Material and methods

This was a quantitative, descriptive and correlational study. The sample was non-probabilistic, consisting of 200 subjects suffering from urinary incontinence, with ages between 29 and 75 years (average=58.42 years; $SD\pm 11.52$). The data collection tool was a questionnaire, which allowed the socio-demographic characterization of the sample and the assessment of vulnerability to stress and quality of life in women with urinary incontinence, using vulnerability to stress (23 QVS) and quality of life scales in women with UI (KHQ), respectively. Ethical and legal procedures were complied to and data analysis was performed using SPSS 20.0 (Statistic Package for Social Sciences) software for Windows.

2.1. Characterization of the sample

With regard to the marital status, 13.3% of subjects were single, divorced or separated, while 86.7% were married or cohabiting. As for the occupation of the subjects, 7.5% had intellectual occupations, 25% had technical occupations and 67.5% were unskilled workers. Considering the employment status, 51% were employed, 17% were unemployed and 32% were retired. As for the place of residence, 71% lived in rural areas, while 29% lived in urban areas.

3. Results

In terms of level of impact of UI, 2.5% of the subjects referred a mild impact; 17.5%, moderate; 64%, serious and 16% very serious. Regarding the vulnerability to stress, the distribution showed that 33.5% of the subjects, under 57 years of age, were not vulnerable, while 16.5% were vulnerable. In subjects over 58 years of age, 41.5% were not vulnerable and 8.5% were vulnerable. In scores related to the spheres associated to quality of life (KHQ), a global score ranging between 14.51 and 91.98 points with an average age of 46.03 years (± 17.99) was observed. Data showed that subjects under 57 years of age scored on average 51.75 (± 11.92) on health perception; 69.66 (± 26.84) on UI impact; 40.16 (± 31.43) on role limitations; 54.16 (± 30.27) on physical limitations; 20.44 (± 18.12) on social limitations; 35.69 (± 34.50) on personal relationships limitations; 53.11 (± 28.05) on emotions; 41.83 (± 29.63) on sleep/energy and 69.33 (± 19.42) on severity measures.

On the other hand, subjects over 58 years of age scored on average 53.75 (± 11.44) on health perception; 66.33 (± 28.22) on UI impact; 39.00 (± 27.74) on role limitations; 42.66 (± 26.72) on physical limitations; 20.22 (± 19.76) on social limitations; 26.66 (± 27.26) on personal relationships limitations; 49.44 (± 24.73) on emotions; 45.50 (± 28.21) on sleep/energy and 60.91 (± 23.70) on severity measures. Statistically significant differences were observed between age groups for physical limitations ($t=2.847$; $p=0.005$); severity measures ($t=2.746$; $p=0.007$) and on the KHQ global score ($t=2.224$; $p=0.027$). Thus, it is possible to conclude that subjects older than 58 years have a better KHQ when facing their physical limitations and severity measures.

When correlation was tested between the component health perception of KHQ and stress vulnerability, a significant inverse correlation was found with perfectionism ($p=0.004$), living conditions ($p=0.030$), self-dramatization ($p=0.046$), subjugation ($p=0.044$), deprivation of affection ($p=0.049$) and with the global score of vulnerability to stress ($p=0.003$). A significant positive correlation was established with lack of support ($p=0.042$).

When it comes to the correlation between the component UI impact of KHQ, a significant inverse correlation was observed with inhibition ($p=0.029$), lack of support ($p=0.042$), self-dramatization ($p=0.004$) and subjugation ($p=0.012$).

The role limitations component of KHQ showed a significant inverse correlation with perfectionism ($p=0.001$), self-dramatization ($p=0.003$) and vulnerability to stress global score ($p=0.000$). Physical limitations of KHQ and vulnerability to stress showed a significant inverse correlation with perfectionism ($p=0.031$), self-dramatization

($p=0.032$), subjugation ($p=0.013$) and vulnerability to stress global score ($p=0.001$). The social limitations component of KHQ showed a significant inverse correlation with perfectionism ($p=0.002$), self-dramatization ($p=0.007$), deprivation of affection ($p=0.005$) and vulnerability to stress global score ($p=0.013$).

Regarding the personal relationships component of KHQ, we found a significant inverse correlation with inhibition ($p=0.002$) and deprivation of affection ($p=0.025$).

The emotions side of KHQ showed a significant inverse correlation with perfectionism ($p=0.018$), inhibition ($p=0.001$), lack of support ($p=0.023$), deprivation of affection ($p=0.001$) and vulnerability to stress global score ($p=0.001$). The sleep and energy component of KHQ showed a significant inverse correlation with perfectionism ($p=0.018$), lack of support ($p=0.004$), living conditions ($p=0.019$), deprivation of affection ($p=0.008$) and vulnerability to stress global score ($p=0.006$).

The severity measures component of KHQ showed a significant inverse correlation with lack of support ($p=0.021$), living conditions ($p=0.042$) and vulnerability to stress global score ($p=0.045$). Lastly, with regards to the global KHQ score, significant inverse correlations were observed with inhibition ($p=0.034$), lack of support ($p=0.024$), self-dramatization ($p=0.006$), deprivation of affection ($p=0.026$) and vulnerability to stress global score ($p=0.001$).

4. Discussion of results

UI is experienced by millions of people of all ages, especially women, affecting their quality of life. With the gradual increase of life expectancy among the population, the number of middle-aged women with UI tends to increase. Many cases of UI are not diagnosed due to lack of information, because many people believe it is a normal condition and a result of the natural aging process.

In terms of vulnerability to stress, women who suffer from UI globally show an average score of 39.37, and are classified as non-vulnerable.

Still comparing the results of vulnerability to stress between age groups, we find that women under 57 years of age show a higher level of vulnerability to perfectionism, inhibition, living conditions and subjugation. In fact, Gee and Payne-Sturges (2004) highlight the importance of understanding the levels of stress and adaptation of an individual to a given context. Prior knowledge that some individuals can be more susceptible to disease, through the identification of their level of vulnerability to stress, could promote the development of intervention strategies aimed at promoting a higher resistance to stress. Thus, this knowledge can be useful for the development of efficient health policies and programs aimed at reducing stress-related diseases, reducing the costs of health services and promoting health among the population.

Following the analysis of vulnerability to stress, we looked at the quality of life of women with UI. Subjects under 57 years of age were found to score 48.65 on the KHQ scale, while those over 58 years scored 42.59, with statistically significant differences on physical limitations, severity measures and overall quality of life. It is possible to conclude that subjects older than 58 years have a better quality of life, when facing their physical limitations and severity measures. These results are in line with results from other studies, highlighting the impact of urinary incontinence as a contributing factor for important changes in people's lives, be it of social or psychological nature. Those changes in lifestyle could also be perceived in the group of patients who had a partner. Many of these patients referred several emotional changes, and it is worth mentioning that urine loss presents serious difficulties to their everyday life. In fact, studies indicate that psychosocial effects of UI can be devastating, with multiple and extensive effects on health perception, daily activities and social interaction (Vigod & Stewart, 2006).

According to a study of Simonetti et al. (2001), from the moment when the impact of incontinence is high enough to limit physical activity and, as a result, the ability to work, a woman with UI feels that her health is affected. The severity of measures to be taken, such as the use of absorbent pads, the limitation of the amount of water ingested, changing clothes that are wet with urine or the possibility of smelling of urine, bring along feelings of impotence and humiliation due to the inability to control urine loss. These measures become indicators of health, of physical function, social function and, consequently, of mental health, and there is a change of the social role of these women, regardless of their will, making them feel increasingly more vulnerable and depressed (Simonetti et al, 2001).

Azevedo (2004) also highlights the social limitations imposed by urinary incontinence, since some women avoid social gatherings and family reunions for fear that an incident related to their inability to retain urine reveals their condition. As for personal relations, an influence of 9.9% due to inhibition was observed.

Emotions are influenced by inhibition, deprivation of affection, self-dramatization and lack of support. For Simonetti et al. (2001) the higher the severity of UI, the greater the impact on emotions, with this impact showing a close relationship with mental health. The authors of this study also mention that the higher the severity of UI, the greater the impact on established personal relationships, related in particular with the woman's partner.

Lack of support and deprivation of affection influence sleep and energy. Sleeping patterns can be disrupted due to the limitations imposed by UI, namely bathroom visits during the night, influencing alertness during the day and affecting all the activities in general and the woman's emotional capacity (Simonetti et al, 2001).

Severity measures are influenced by self-dramatization, lack of support, perfectionism and vulnerability to stress. As mentioned by Rett et al. (2007) hygienic discomfort will be higher as severity measures increase, since the fear of urine losses and urine smell develops the need to use absorbent pads and to change clothes frequently. In this way, women grow fears of being considered useless, of feeling humiliated, resulting in feelings of anxiety and loneliness which culminate in depression (Simonetti et al, 2001; Azevedo, 2004; Vigod & Stewart, 2006).

5. Conclusions

Quality of life is a multidimensional concept comprising of social, physical and mental aspects of an individual. As such, interventions related to the quality of life of individuals are currently assessed taking into account the individual's perception about his/her own wellbeing and expectations, including on a physical, social, emotional and occupational level.

UI, with its associated symptoms, can have a significant impact on the quality of life and a significant variety of perceptions and responses, often mediated by vulnerability to stress. So, in assisting women's health, it is necessary to identify problems and risk factors for the prevention, diagnosis and treatment related with urinary loss in women.

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