



Climacteric Women's Life Quality with Urinary Incontinence in Aracaju City

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Authors' contributions

This work was carried out in collaboration between all authors. Author JAA designed the study, wrote the protocol, and wrote the first draft of the manuscript. Author JAA managed the analyses of the study. Author VLCF performed the statistical analysis. Author FPR co-designed the study, managed the literature search and proof read the first draft manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: Climacteric is the biological cycle period in women characterized by loss of ovarian follicular activity, causing innumerable emotional, physical and endocrinal changes. In this period, which starts at the age of 40 and finishes at 60, some women undergo profound existential experience in their interpersonal relations, in their conjugal, professional, spiritual, social and cultural life.

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Objective: Assess the impact of urinary incontinence in women's quality of life into climacteric period, registered at health units in the city of Aracaju, Sergipe/ Brazil.

Materials and Methods: A retrospective observational study was conducted on 476 women from 41 health care units in the national family health strategy program. A specific questionnaire, King's Health Questionnaire (KHQ), validated in Brazil by Tamamani et al. (2006), was used to collect data. The data collected was divided into categories. Frequency distribution and cross tabulation, with determination of confidence intervals for each frequency, were applied. The descriptive analysis was carried out through the measure of dispersion and measures of central tendency by the software Microsoft Excel 2007. Data were described by simple and proportions.

Results: 476 climacteric women were interviewed, aged 40 to 59 years old. Among those, 32% reported complaint of urinary incontinence, at least once a week, for at least three months in the last year. The most affected domains of KHQ were: Impact of urinary incontinence, followed by general perception of health and measurements of gravity with average above 50%. The sample was calculated from the formula proposed by Barbeta (2001).

Conclusions: Although other domains had average below 50, the influence of urinary incontinence in the life quality of climacteric women in Aracaju/SE was not discarded, as the presented data pointed that most women interviewed showed at least minor discomfort in the everyday activities, physical and social limitations, compromising personal relations like relationship with their partners and sexual life, emotions, sleep, disposition and measurements of gravity.

Keywords: Life quality; climacteric; urinary incontinence; women's health.

1. INTRODUCTION

Climacteric is the biological cycle period in women characterized by loss of ovarian follicular activity, causing innumerable emotional, physical and endocrinal changes. In this period, which starts around the age of 40 and finishes almost at 60, some women undergo profound existential experience in their interpersonal relations, in their conjugal, professional, spiritual, social and cultural life [1,2].

About 60% to 80% of women refer some kind of symptomatology during climacteric, most of it attributed to hypoestrogenism. Among the related complaints, common ones include vasomotor symptoms, vaginal dryness, dyspareunia, urinary alterations, and among those, stand out the urinary incontinence (UI) and urinary urgency derived from urogenital atrophy with important repercussion in the sexual sphere and in the female quality of life [1-3].

The term "quality of life" (QL) has a multidimensional focus, subjective concept and many definitions. Among those, are included the physical health conditions, cognitive functions, sexual satisfaction, everyday activities, emotional well-being, family and social life. When those occurrences are related to health, they can be measured through questionnaires, and are about the degree of limitation and discomfort that the disease and its therapeutics cause to the

patient's life, in short, how much the sickness alters the QL [1,4-7]. The UI is a common problem among women; the prevalence of the sickness varies from about 6% to 60%, in different studies [3,8-16]. Although UI does not directly put people's life at risk, it is a condition that can have serious medical, social, psychological, economic implications, affecting adversely the QL in women [2,3,6,17].

Incontinent women start to worry about the availability of toilets, [18] feeling embarrassed about the odor of the urine, with the possibility of presenting cutaneous lesion like ammoniac dermatitis due to the humidity of leaked urine, repeated urinary infections or constant use of lining and sanitary napkin. Many still present difficulty in the sexual intercourse, whether for the loss of urine or for being afraid to interrupt the intercourse to urinate or simply embarrassment before her partner. The woman may not feel attractive especially when using sanitary napkin [18-19].

It has been increasingly greater the number of women at 45 or over years old that are full of vitality and wish to enjoy a social life without restrictions making it imperative to contribute to the improvement of the QL of pre and postmenopausal women with UI [12-13].

In health care [19], the interest in the concept "quality of life" is relatively recent and derives

partly from the new paradigms which have influenced the policies and practices of the health care sector in the last decades. The determinants and the constraints of the health-illness process are multi-factorial and complex. Consonant with the change of paradigm, the improvement of QL came to be one of the expected results both of the assistance practices and the public policies for sectors like health promotion and disease prevention [20].

In patients with chronic diseases new dimensions of health have been incorporated into traditional evaluation parameters, thus the measurement of the impact of the disease on the patient's quality of life becomes an increasingly important tool [1,5,20]. The assessment of health-related QL indicators are multidimensional, allowing numerous evaluation conditions in which individuals with the same disease can have different levels of health and physical and emotional well-being.

One of the most frequently employed forms of evaluation are the questionnaires, which are intended to transform subjective measures into objective data that can be quantified and analyzed in global or specific ways [1,20-21]. These can be self-administered or administered by skilled people or trained personnel through interviews [19].

What an individual thinks and feels, represents an important definition of QL. Therefore, patients with the same clinical diagnose can produce extremely different clinical answers. Accurate measurements on QL have been increasingly important to policy reviews and analysis of health-related programs, serving as a research tool and monitoring overall health policy template [19,20,22].

Studies have shown [16,20] that women with UI refer limitation at physical levels, like: Playing sports, carrying objects, alterations in the occupational, domestic and social activities, such as going to public places, traveling, sleeping out of home, and even visiting friends, compromising negatively sexual life and emotional state.

The urinary incontinence even provokes social and hygienic discomfort for the fear of the urine smell, having the need to use protectors (sanitary napkins) to frequently change clothes. Besides, the presence of irritative symptoms of the inferior urinary tract, like nocturia, urgency and urge incontinence compromises sleep and social

relationship leading to tiredness, depression and even isolation [2,18].

The acceptance of incontinence [2,7] varies considerably according to cultures, countries, way of life and age group. In a younger woman, urinary loss, even minimum, can be experienced in a dramatic way in association with a phenomenon of premature senility, fear of getting wet, smelling bad, going to the bathroom several times to avoid the involuntary elimination of urine, constant use of protectors even for exceptional disposal and adjustment of dressing habits to adapt to the situations of urgency [10,19-20].

The International Continence Society (ICS) recommends that questionnaires about the QL in each and every study about UI should be included since many methods like the urodynamic study, pad test and the stress test are used as objective parameters in assessing the treatment of the UI, but they do not contemplate the impact that this condition makes on the QL and on the everyday life of these women [19,20,23]. These literature data indicates to us that the relationship between UI and QL, particularly in the climacteric period, regardless of geography and culture, persists among women as a problem that affects their lives in general. In literature, several questionnaires are available to assess the QL, which aim at facilitating the visualization of this problem between the interdisciplinary team and the patients, for example: Bristol Female Lower Urinary Tract Symptoms (BFLUTS), Quality of life in persons with urinary incontinence (I-QoL), Stress Incontinence Questionnaire (SIQ) and the King's Health Questionnaire [19-20]. The latter was chosen not only for its validation in Brazil, but also because it was more practicable and viable in our midst.

This study aimed to correlate the impact of urinary incontinence on the quality of life of climacteric women, registered in the Health Center in Aracaju/SE, according to coverage of the Health Family Program.

2. MATERIALS AND METHODS

A retrospective observational study was carried out with 476 women in the age group of 40 to 59 out of the 54,869 registered in the health center in Aracaju/SE. The sample was calculated from the formula proposed by Barbeta [24] with maximum desired difference between the sample

and population ratio of 5%. A specific questionnaire was used - King's Health Questionnaire (KHQ) - translated and whose reliability has been ratified and consolidated by Brazilian researchers, after validated in Brazil by Tamamani et al. [25]. It assesses both the presence of symptoms of UI and its impact on the different domains of QL, like the symptoms felt by the women. The ICS classifies the KHQ as 'highly recommendable' or level A to be used in research [25].

The KHQ is made up of 21 questions which are grouped in 8 domains which relate respectively: the general perception of health, the impact of incontinence, the limitation in the performance of everyday activities, the social and physical limitations, the personal relations, the emotions, sleep/disposition and the gravity measures. Besides these domains, there are two other independent scales: one assesses the gravity of urinary incontinence and the other one the presence and intensity of urinary symptoms.

These scales, such as Likert are graded in four options of reply (not a little, a little, moderately, very, never, sometimes, often, all the time), an exception is made to the domain general perception of health which have five options of reply (very good, good, regular, bad, very bad) and to the domain personal relations (not applicable, not a little, a little, moderately and very).

The KHQ is scored for each one of its domains, there is not, therefore, general score. The scores vary from 0 to 100. The bigger the score achieved, the worse is the quality of life related to that domain.

The questionnaire was originally standardized to be self-administered, but the application was made in the form of individual interview in order to avoid not understanding the questions or excess of variables, which might interfere in the final result of the research.

The UI was evaluated according to the accepted by the International Society of Continence, as the complaint of any involuntary loss of urine with its three types of urinary incontinence: effort (UIE), urgency (UIU) and mixed (UIM). The data collected were inserted in a spreadsheet, being used the software Microsoft Excel 2007. First, they were divided into categories and then, there was the distribution of frequency carried out and the cross tabulation. The descriptive analysis

was carried out through the measure of dispersion, the measures of central tendency and the determination of confidence intervals for each frequency, whilst it was firmed the score of each of the domains in the population as a tiebreaker criterion, without overlapping confidence intervals. Data were described by simple and proportions. Confidence intervals were calculated by Jeffrey's interval for proportion method as described in Brown et al. [26].

We had limitations for including some variables that could be related to the quality of life and urinary incontinence: age, onset of sexual activity, sexual partner, number of pregnancies, births and abortions, education level, occupation, income, number of children, marital status, among other variables.

A Term of Free and Clarified Consent was written consonant with the norms of the National Health Council of the Health Ministry made explicit in the 466/12 resolution. The research was approved by University Tiradentes Ethics Committee, registration No. 010408.

3. RESULTS

Among 476 women interviewed, 151 (32%) presented menstrual alterations and complained involuntary loss of urine at least one or more times a week, for at least three months in the last year. The average age was 51, in which 60% of women reported urinary loss between 0 and 3 years; 25% between 4 and 7; 11% between 8 and 11; and 4% for more than 11 years, with a time average of 3,8 years.

In general health perception more than 70% of women have reported feeling between regulate and bad. The average obtained in this domain was 58%, Table 1.

Table 2 shows that about 90% of women reported that the urinary incontinence hurt a little to moderate their lives, their household chores (cleaning the house, shopping) and activities outside their home. The average found for the impact of UI was 61% and 49% for limitations of daily life.

Table 3 presents the findings corresponding to the areas of domains: Physical (activities), and social (journeys, the social life) limitations and personal relationship (partners, sexual and family life), for which overall averages were similar. Averages of 38% and 36% have been found

regarding the impact of menopause on emotion, sleep and disposal, respectively. It is worth emphasizing that about 85% of women replied that the bladder troubled them a little or a few times, Table 4.

Concerning the severity of measures that can be seen in Table 5, 78% to 86% of women often said to use napkins or lining and exchange underwear when wet. More than 50% mentioned that they are worried about the possibility of smell of urine and feel embarrassed because of the problem of urine. The average found in this area was 51%.

4. DISCUSSION

It is known that the UI as a limiting and progressive condition can influence the QL of persons. In this study, the prevalence UI was found in 32% of climacteric women. The literature reports the presence UI among these women, ranging from 30% to 60% [10,13-15,17].

The most affected domains, with an average over 50%, were the impact of the UI, general health perception and severity measures. An evaluation of IQ, held in Chile, in women with incontinence in menopause, carried out through the KHQ, among 46 women interviewed: 65.2% reported complaints about the general perception of health; 56.5% in the impact on the quality of life; and 15.2% in the commitments of daily activities [27].

A study was held in 77 clinical protocols of a maternity hospital in the state of São Paulo, Brazil and it was reported that the biggest impact of UI in the quality of life occurred in the domain of the health general perception whose scores of evaluation measured by KHQ were always above 50%, with a bigger compromise in the mixed urinary incontinence whose average was of 59,6%. While in the domain of impact of urinary incontinence, the averages according to the type of incontinence were: UIU, 66,67%; UIE, 69,89; and, UIM, 75,49% [28].

Table 1. Assessment of the general perception of health in climacteric women with urinary loss

General perception of health				
Average (CI-95%): 58% (53.3-62.4)				
How is your health at the moment?				
Very good	Good	Regular	Bad	Very bad
1 (0.04-2.4)	19 (15.7-22.9)	34 (29.8-38.4)	38 (33.6-42.5)	7 (4.9-9.6)

CI-95%: 95% Confidence Intervals

Table 2. Assessment of impact of urinary incontinence and limitations of EDA's in climacteric women

Incontinence impact			
Average(CI-95%): 61% (56.4-65.4)			
How much does your bladder problem affect your life?			
Not a little	A little	Moderately	A lot
2% (1-3.6)	20% (16.5-23.8)	71% (66.8-75.1)	7% (4.9-9.6)
Limitations of EDA's			
Average (CI-95%): 49% (44.3-53.5)			
How much does your bladder problem affect your household chores?			
Not a little	A little	Moderately	A lot
3% (1.8-5)	50% (45.5-54.6)	46% (41.5-50.6)	1% (0.04-2.4)
How much does your bladder problem affect your work or activities away from home?			
Not a little	A little	Moderately	A lot
1% (0.04-2.4)	51% (46.5-55.7)	47% (42.4-51.5)	1% (0.04-2.4)

CI-95%: 95% Confidence Intervals

Table 3. Assessment of social, physical limitations and personal relation in climacteric women with urinary loss

Social and physical limitations				
Average (CI-95%): 39% (34.6-43.6)				
Does your bladder problem affect your physical activities?				
Not a little	A little	Moderately	A lot	
1,4% (0.06-2.7)	89% (85.9-91.7)	8,6% (6.2-11.4)	1% (0.04-2.4)	
Does your bladder problem affect your trips?				
Not a little	A little	Moderately	A lot	
1% (0.04-2.4)	51% (46.5-55.7)	47% (42.4-51.5)	1% (0.04-2.4)	
Does your bladder problem limit your social life?				
Not a little	A little	Moderately	A lot	
2,5% (1.3-4.1)	50% (45.5-54.6)	47,5% (43-52.2)	0% (0-0)	
Does your bladder problem limit your meeting or visiting friends?				
Not a little	A little	Moderately	A lot	
3% (1.8-5)	87% (83.7-89.9)	9% (6.6-11.9)	1% (0.04-2.4)	
Personal relations				
Average (CI-95%): 39% (34;6-43.6)				
Does your bladder problem affect your relationship with your partner?				
Not Apliable	Not a little	A little	Moderately	A lot
2,6% (1.4-4.4)	2,6% (1.4-4.4)	49,8% (45.2-54.4)	41,7% (37.2-46.2)	3,3% (1.9-5.2)
Does your bladder problem affect your sexual life?				
Not Apliable	Not a little	A little	Moderately	A lot
3% (1.8-5)	2% (1-3.6)	43% (38.6-47.6)	51% (46.5-55.7)	1% (0.04-2.4)
Does your bladder problem affect your family life?				
Not Apliable	Not a little	A little	Moderately	
3% (1.8-5)	4% (2.4-6)	86% (82.6-88.9)	7% (4.9-9.6)	

CI-95%: 95% Confidence Intervals

Table 4. Assessment of emotions, sleep and disposition in climateric women with urinary loss emotions

Average (CI-95%): 38% (33.6-42.5)				
Does your bladder problem maker you feel depressed?				
Not a little	A little	Moderately	A lot	
4% (2.4-6)	89% (85.9-91.7)	7% (4.9-9.6)	0% (0-0)	
Does your bladder problem make you feel anxious?				
Not a little	A little	Moderately	A lot	
2% (1-3.6)	60% (55.5-64.5)	38% (33.6-42.5)	0% (0-0)	
Does your bladder problem make you feel bad about yourself?				
Not a little	A little	Moderately	A lot	
1% (0.04-2.4)	51% (46.5-55.7)	47% (42.4-51.5)	1% (0.04-2.4)	
Sleep and disposition				
Average (CI-95%): 36% (31.7-40.4)				
Never	Sometimes	Frequently	All the time	
1% (0.04-2.4)	89% (85.9-91.7)	9% (6.6-11.9)	1% (0.04-2.4)	
Do you feel tires or burnt-out?				
Never	Sometimes	Frequently	All the time	
1% (0.04-2.4)	89% (85.9-91.7)	9% (6.6-11.9)	1% (0.04-2.4)	

CI-95%: 95% Confidence Intervals

Table 5. Assessment of gravity measures in climacteric women with urinary loss

Average (CI-95%): 51% (46.5-55.7)			
Do you use sanitary napkins or lining to keep dry?			
Never	Sometimes	Frequently	All the time
1% (0.04-2.4)	11% (8.3-14.1)	86% (82.6-88.9)	2% (1-3.6)
Do you mind the amount of liquid you drink?			
Never	Sometimes	Frequently	All the time
1% (0.04-2.4)	51% (46.5-55.7)	48% (43.5-52.6)	0% (0-0)
Do you change underwear when they are wet?			
Never	Sometimes	Frequently	All the time
1,3% (0.6-2.7)	19,2% (15.9-23.1)	78,2% (74.3-81.9)	1,3% (0.6-2.7)
Do you worry about the possibility of smelling of urine?			
Never	Sometimes	Frequently	All the time
2% (1-3.6)	45% (40.4-49.5)	53% (48.5-57.6)	0% (0-0)
Do you feel embarrassed because of your bladder problem?			
Never	Sometimes	Frequently	All the time
3,3% (1.9-5.2)	44,4% (39.8-48.9)	53,3% (48.7-57.8)	0% (0-0)

CI-95%: 95% Confidence Intervals

A study [29] was conducted for about six months at a health center in the city of Campinas/São Paulo including 213 women who complained about involuntary loss of urine. Among these (16.4%), whose ages ranged between 21-76 years old, with an average of 44.3 years of age made reference to the involuntary loss of urine. This evaluation by KHQ indicated relatively high scores, especially in the dimensions of impact of incontinence (66,7%), gravity measures (47,2%), perception of health (44,3%), and important limitation in daily activities (43,8%).

Although it has been found, for the most part of the domain of the great areas of the KHQ, averages below 50%, it did not mean, according to the descriptions found, in the present study, that the women have not reported any kind of discomfort. This can be seen in this study when most of the women who were interviewed reported discomfort in participation in physical trainings in daily activities, social commitments, sexual life, sleeping, emotions and tiredness. It has been reported that these women that change their daily routine, are troubled by sleep disorders, as well as becoming unwell, move away from social events like cinema, parties, use public transport, and make long trips [16].

In the United States, the annual direct cost of UI is of more than 19,5 billions of dollars with reduction in total productivity estimated at 553 millions, being 393 reduced by women with UI and 159 millions by men in the same condition [30-31]. On the other hand, in Brazil, there is no information about the onus that can cause to

society. Baring in mind the change in the profile of morbidity and mortality, chronic diseases and their complications, which imply years of use of health service, have become predominant. The measures which allow the decision-making based on the health state of the population elevated the QL to the essential principle category for the health systems for the new millennium [20].

Differences in values in the frequencies found between the different studies may be justified as a consequence of the subjective character of the evaluation of quality of life. Meanwhile, it must also be considered factors such as social, cultural, religious and hygiene. For us, the problem of UI climacteric goes beyond just medical treatment. Having said that, we believe that a multidisciplinary team (physiotherapist, psychologist and social worker) could contribute to more deal effectively with this type of patient.

5. CONCLUSION

Although other domains had average below 50, the influence of urinary loss in the life quality of climacteric women in Aracaju/SE was not discarded, as the data presented pointed that most of the women interviewed presented some minor discomfort in the everyday activities, physical and social limitations, compromising personal relations, for instance relationship with their partners and sexual life, emotions, sleep, disposition and measurements of gravity. Even though this research was done only with climacteric women, the results obtained are in

accordance with studies carried out, which demonstrate that urinary incontinence interferes in the life quality of women.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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