Original article

Quality of sexual life of women with urinary complaints in reproductive age and after menopause

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Abstract: *Aim*: To compare the quality of sexual life of women with urinary incontinence during reproductive age and menopause, and to analyze epidemiological data, including gynecological and obstetric characteristics. *Methods*: Cross-sectional, descriptive, and quantitative studies that evaluated women with urinary symptoms who sought assistance at the female urology services of Women's Hospital and received gynecological care and assessment according to the Golombok Rust Inventory of Sexual Satisfaction (GRISS)-Female version in Macapa City, from February to June 2013. *Results*: Stress urinary incontinence was the predominant symptom, with a prevalence of 94.1% in postmenopausal women and 87.8% in non-menopausal women. Vaginal deliveries were more predominant than cesarean deliveries (median: 3 > 1) in both groups. Statistical significance was observed in the frequency of sexual intercourse (p = 0,0217), sexual satisfaction (p = 0,0105), expression of feminine sensuality (p = 0,0293), dyspareunia (p = 0.0022), and anorgasmy (p = 0.0002). *Conclusions*: Urinary incontinence had a negative effect on female sexuality, especially when associated with advanced age, which resulted in a decline in the quality of life of the women in this study.

Keywords: Quality of Life; Sexuality; Urinary Incontinence; Women's Health.

INTRODUCTION

Urinary incontinence (UI), according to the International Continence Society, is defined as a complaint of any involuntary urine leakage[1]. Stress UI (SUI) is defined as an involuntary urine leakage during activities that require efforts, in combination with increased intra-abdominal pressure, but without simultaneous contractions of the detrusor muscle. Urgency UI (UUI) is characterized by the presence of urgency with a consequent urine leakage. Finally, mixed UI (MUI) is defined as the simultaneous occurrence of UI and UUI[2].

An estimated one-third of women experience involuntary urine leakage or excessive urgency within their lifetimes. The real prevalence mainly depends on age and peaks in the postmenopausal period, singly or in the form of MUI[3].

According to Tinelli[4], estrogens increase the tone and vascularization of pelvic floor muscles, which explains the relationship between estrogen deficit in menopause and the increasing prevalence of urogenital problems.

Nilsson et al.[5] found that half of women with UI reported a concern about urinary leakage during intercourse, and nearly two-thirds declared they fear the odor and reported feeling unattractive. Cohen et al.[6], in a qualitative study involving patients with UUI, found that partners of patients complained mainly of interruption of intercourse by urinary leakage during intercourse.

UI is a condition that affects women's personal, social, professional, and sexual well-being. Women with SUI present significantly more tendency to have decreased libido, decreased vaginal lubrication, and dyspareunia, regardless of age, educational level, and ethnicity[7].

Female sexuality is influenced by biological factors such as puberty, pregnancy, and menopause, and by individual aspects, including social and cultural variables, making it a complex and striking phenomenon in women's quality of life[8,9].

Thus, this study aims to compare the quality of sexual life of women with UI complaints in the reproductive age and menopausal period, and to analyze the associated epidemiological profile, and gynecological and obstetric characteristics.

METHODS

This was a cross-sectional, descriptive, and quantitative study in women with urinary symptoms who sought urogynecological service at Women's Hospital Mãe Luzia, Macapá City, between February and June 2013. The study was conducted in accordance with the recommendations of the Declaration of Helsinki, revised in 2008,[10] regarding the guidelines for research involving human subjects. The project was approved by the research ethics committee of the Federal University of Amapá. All the participants signed the Free and Informed Consent Term form.

Inclusion criteria were as follows: the presence of urinary symptoms as the chief complaint, no confirmation by urodynamic examination, and no history of corrective surgery via vaginal access, retropubic access, or both. The exclusion criteria were as follows: communication failure or difficulty in answering the questionnaire, pregnant women, postpartum women, infants, children aged <18 years, and women with disease and/or neurological sequelae.

The patients were divided into two groups, the menopausal group (women who had their last menstrual cycle within >12 months) and reproductive age group (women who had their reproductive capacity preserved), and gynecologically evaluated and assessed by using the Golombok Rust Inventory of Sexual Satisfaction (GRISS)–Female version.

The GRISS[11] questionnaire is used internationally and consists of 28 questions that evaluate seven areas of female sexual function (frequency of sexual activity, sexual communication, sexual satisfaction, sexual avoidance, expression of sensuality, vaginismus, and anorgasmia). Each evaluation received a score of 0-9, distributed between the frequency of the mentioned events (never, rarely, sometimes, often, and always). The total GRISS score indicates the degree of sexual satisfaction, and the cutoff point in each domain is 5 points.

In addition to the GRISS, a questionnaire was used to assess socioeconomic aspects, the presentation of urinary complaints, and gynecological history. The questionnaire application was made by the same researcher, and responses to the questionnaire were self-reported.

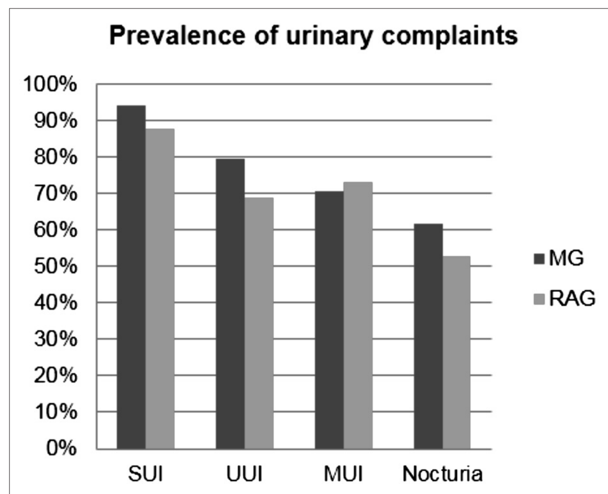
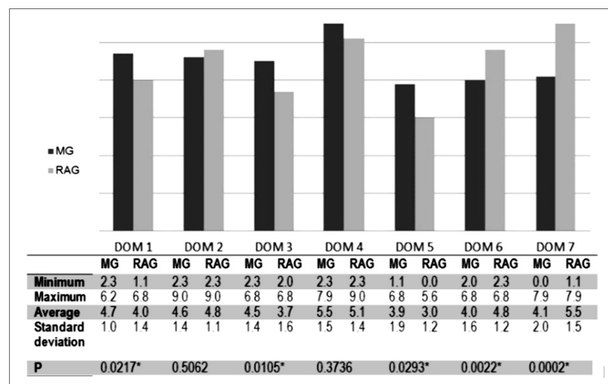


Figure 1. – Prevalence of urinary complaints in the reproductive age group (RAG) and menopause group (MG) of patients treated at the urogynecology clinic of a reference hospital in Macapá City, AP, between February and June 2013 (n = 108). MG: Menopause Group; RAG: Reproductive Age Group; SUI: Stress Urinary Incontinence; UUI: Urgency Urinary Incontinence; MUI: Mixed Urinary Incontinence.

To evaluate the GRISS, the domains were presented through measures of central tendency and variation, and analyzed by using the Mann-Whitney *U* test. The evaluation according to age group was performed by using the Kruskal-Wallis test with Dunn's posttest. Quantitative variables were analyzed by using the c^2 test (chi-square). A p value of <0.05 indicated a significant difference. All statistical analyses were performed in the BioEstat version 5.3 software.

RESULTS

The total patient sample (108 women) was divided into groups as follows: reproductive age group (RAG) with 74 patients and the menopause group (MG) with 34 patients. The MG presented a mean age of 58 ± 13 years; and the RAG, 40 ± 16 years. Most of the women were married (47.1% and 43.2%, respectively), with 11 years of education (41.2% and 48.6%, respectively; Table 1).



	DOM 1		DOM 2		DOM 3		DOM 4		DOM 5		DOM 6		DOM 7	
	MG	RAG	MG	RAG	MG	RAG	MG	RAG	MG	RAG	MG	RAG	MG	RAG
Minimum	2.3	1.1	2.3	2.3	2.3	2.0	2.3	2.3	1.1	0.0	2.0	2.3	0.0	1.1
Maximum	6.2	6.8	9.0	9.0	6.8	6.8	7.9	9.0	6.8	5.6	6.8	6.8	7.9	7.9
Average	4.7	4.0	4.6	4.8	4.5	3.7	5.5	5.1	3.9	3.0	4.0	4.8	4.1	5.5
Standard deviation	1.0	1.4	1.4	1.1	1.4	1.6	1.5	1.4	1.9	1.2	1.6	1.2	2.0	1.5
P	0.0217*		0.5062		0.0105*		0.3736		0.0293*		0.0022*		0.0002*	

Figure 2. – Evaluation of assessments related to sexual satisfaction (GRISS questionnaire) in the menopause group (MG) and reproductive age group (RAG) of patients treated at the urogynecology clinic of a reference hospital in Macapá City, AP, between February and June 2013 (n = 108). MG: Menopause Group; RAG: Reproductive Age Group; DOM 1: Frequency of Sexual Activity; DOM 2: Sexual Communication; DOM 3: Sexual Satisfaction; DOM 4: Sexual Avoidance; DOM 5: Lack of Sensuality Expression; DOM 6: Vaginismus; DOM 7: Anorgasmia.

Table 1. Distribution of socioeconomic data in the reproductive age group (RAG) and menopause group (MG) of patients treated at the urogynecology clinic of a reference hospital in Macapa City, AP, between February and June 2013 (n = 108).

	RAG (n)	%	MG (n)	%
AGE				
20-30	7	9.5	0	0.0
31-40	30	40.5	0	0.0
41-50	34	45.9	4	11.8
51-60	3	4.1	16	47.1
61-70	0	0.0	12	35.3
71-80	0	0.0	2	5.9
EDUCATIONAL LEVEL				
Illiterate	0	0.0	3	8.8
Elementary School	22	29.7	13	38.2
High School	36	48.6	14	41.2
College	16	21.6	4	11.8
MARITAL STATUS				
Married	49	66.2	22	64.7
Single	19	25.7	5	14.7
Divorced	6	8.1	7	20.6

Among the urinary complaints, the most prevalent was SUI in both groups (94.1% in the MG and 87.8% in the RAG). Nocturia was the less prevalent complaint (61.8% and 52.7%, respectively Figure 1). In the MG the beginning of menopause was more prevalent in two age groups, the 45- to 47-year (29.4%) and 51- to 53-year age groups (32.4%) (Figure 2; Table 2).

With respect to obstetrical history, we observed that the mean number of vaginal deliveries was 3.76 in the MG and 2.83 in the RAG. Meanwhile, the mean numbers of cesarean births were 0.14 and 0.22, respectively. Home births occurred at a higher frequency in the MG (1.35 births per woman) than in the RAG (0.48).

Among the seven areas assessed in the GRISS, five were statistically significantly related to the lower sexual quality of life in the MG than in the RAG (frequency of sexual intercourse, p = 0.0217; sexual satisfaction, p = 0.0105; women sensuality expression, p = 0.0293; dispaurenia, p = 0.0022, and anorgasmia, p = 0.0002).

DISCUSSION

The sexual quality of life, especially in women, is not adequately evaluated by using physical or clinical methods, as in other areas of individuals' health[2,12,13,14]. Therefore, evaluation questionnaires are useful to translate subjective aspects of women's sexuality into quantitative variants of sexual satisfaction[2,12].

Table 2. Distribution of gynecological and obstetrical history in the reproductive age group (RAG) and menopause group (MG) of patients treated at the urogynecology clinic of a reference hospital in Macapá City, AP, between February and June 2013 (n = 108).

	RAG (n)	%	MG (n)	%
MENOPAUSAL AGE, YEARS				
45-47			10	29.4
48-50			9	26.5
51-53			11	32.4
54-56			4	11.8
Mean number of natural deliveries	2.83		3.76	
Mean number of cesarian deliveries	0.22		0.14	
Mean number of forceps deliveries	0.02		0	
Mean number of homebirths	0.48		1.35	
Mean number of abortions	0.37		0.47	

The mean age observed in the MG was compatible with the period when menopause installation often occurs, which is from 45 years of age[15,16]. Nevertheless, the presence of urinary complaints in younger women (20-45 years) suggests that this age group can also report UI, which demonstrates that UI is not an exclusive condition of advanced age. However, symptom severity and its impact are greater in the postmenopausal population, as evidenced by the low scores in the GRISS components evaluated in this study.

The following sociodemographic findings were similar between the two groups, being predominant: civil status "married/common-law marriage," educational level "completed high school," and the origin of the urban area. The study of Bomfim et al.[17], which evaluated the profile of incontinent women who were attending public and private services in Maceio City, Alagoas, obtained similar sociodemographic results, suggesting that this profile has greater motivation to seek health service[3,15], despite the great personal and social stigma that UI generates in these women's lives[18,19].

In order of frequency, the most prevalent urinary complaints in urogynecology clinics are stress incontinence, UUI, and to a lesser extent, nocturia[2]. This same pattern was observed in this study and in the studies of Riss et al[2] and Liebergall-Wischnitzer et al[13].

These urinary symptoms increase with age[2,15] and have significant effects on the quality of sexual life[19,20], confirmed in this study by the reduced scores in the GRISS domains in the MG. This assertion is supported by the study of Ratner et al[14], which identified improvement in sexual quality of life of incontinent women after treatment of UI.

The higher frequency of vaginal deliveries in the MG than in the RAG suggests that women in this group had obstetrical risk profile for UI[12,15], especially for SUI[21] (>90% in the MG).

Prado[22] affirms, however, that the mode of delivery does not alter the risk of developing UI. As compared with nulliparity, pregnancy in itself constitutes a risk. Regardless of the mode of delivery, UI is caused by damage to the pelvic floor during pregnancy[3].

Nevertheless, the probability of injury to the pelvic floor increased with the highest number vaginal deliveries[15]. In addition, advancing age and menopause itself constitute triggering factors such as the findings of Ratner et al[14], Bomfim et al[17], and Cetinkaya et al[21].

The analysis of GRISS score in the "Frequency of Sexual Intercourse" domain confirmed the reduction in the frequency of sexual intercourse in the MG, similarly to the results reported by Ratner et al[14] and Topatan, Yildiz[16]. Climacteric or postmenopausal women have reduced frequency of sexual relations[16], triggered by the reduction of libido[13], discomfort during intercourse due to atrophy of the vaginal mucosa, lubrication reduction[8,20], weight gain, onset of comorbidades[14,20], the absence of a partner, or reduced sexual interest by both parties in a stable union[8,20,23].

The MG also showed higher scores in the domain "Dyspareunia" and "Anorgasmia." These conditions trigger a reduction in sexual satisfaction and frequency of sexual relations[15,24] and commonly increase owing to changes in the genitourinary tract during menopause[14]. These domains affect the third domain, "Women Sensuality Expression," the results of which suggest less satisfaction with their own bodies and reduction in strategies to improve the sexual life in the MG. This population may lose interest in sex due to urinary symptoms and the many physical changes previously cited[14,16].

Sexual interest is determined based on intrinsic hormonal and psychological factors such as self-image and self-esteem. Both decreased hormonal levels and dissatisfaction caused by the body[15,25] are determining factors for the reduction of sexual interest[18,24]. Women who feel unable to express their sensuality possibly feel retracted to continue their sex life appropriately[23]. Thus, the "Sexual Satisfaction" domain (domain 3) score was also reduced in the MG[14,16].

Exuberant symptoms of UI[19] that are associated with inadequate support offered by the partner[19,20] and insufficient medical care directed to sexuality have significant impact on women's quality of life[13,14,19,22] and make the development of coping strategies to maintain quality of sexual life difficult[20], especially when they occur during the climacteric or menopausal period[20,21].

The absence of a urodynamic study is explained by the focus in the clinical finding of UI, its perception, and the impact of these symptoms on the quality of life of this population, as these factors are the real modifiers of the quality of life in this group. As limitations, we noted the absence of data about comorbidities (obesity, diabetes mellitus, and hypertension), factors known to be related to sexuality.

In conclusion, UI has a negative impact on female sexuality, which is aggravated in the presence of menopause. However, to determine whether menopause, gynecological-obstetrical profile, or both are the predominant factors for the deterioration of sexual quality of life, further studies are needed to define the degree of influence of each of these changes on women's sexuality.

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