



Assessment of Sexual Quality of Life and Menopausal Symptoms in a Vulnerable Population

Avaliação da Qualidade de Vida Sexual e Sintomas da Menopausa na População Vulnerabilizada

Evaluación de la Calidad de Vida Sexual y Síntomas de la Menopausia en Población Vulnerabilizada

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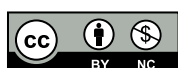
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ABSTRACT

Objective: To assess sexual quality of life and the impact of menopause among women receiving care during a volunteer outreach expedition in the city of Conde, state of Paraíba, Brazil. **Method:** This observational, cross-sectional, quantitative study included 50 women at different stages of the climacteric and menopause. The validated Sexual Quality of Life – Female (SQoL-F) and Menopause Rating Scale (MRS) instruments were administered through individual interviews. Statistical analyses were performed using SPSS version 26.0, employing nonparametric tests with a significance level of 5%. **Results:** The mean age of the participants was 46.18 years. Most were single (70%) and had two children (88%). The mean SQoL-F score was 85.3, indicating a favorable perception of sexual quality of life, whereas the mean MRS score was 26.1, suggesting climacteric symptoms of moderate severity, particularly in the somatovegetative and psychological domains. Women younger than 50 years presented higher SQoL-F scores. However, no significant associations were found between MRS scores and sociodemographic or reproductive variables. Furthermore, no correlation was observed between symptom severity and sexual quality of life. **Conclusion:** Despite experiencing a considerable symptom burden, participants maintained a positive perception of their sexuality, influenced by subjective and cultural factors. These findings highlight the need for comprehensive, humanized, and culturally sensitive care strategies, as well as the use of validated assessment tools, to support clinical practice and public policies focused on women's health during the climacteric period.

Descriptors: Menopause; Sexual Health; Women's Health; Quality of Life; Vulnerability.



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RESUMO

Objetivo: Avaliar a qualidade de vida sexual e os impactos da menopausa em mulheres atendidas durante uma expedição voluntária em Conde, na Paraíba. **Método:** Estudo observacional, transversal e quantitativo, realizado com cinquenta mulheres em diferentes fases do climatério e da menopausa. Foram aplicados os instrumentos validados SQoL-F e MRS em entrevistas individuais. A análise estatística foi conduzida no SPSS 26, utilizando testes não paramétricos, com nível de significância de 5%. **Resultados:** A amostra apresentou uma média etária de 46,18 anos, majoritariamente solteiras (70%) e com dois filhos (88%). O escore médio do SQoL-F foi de 85,3, indicando boa percepção da qualidade de vida sexual, enquanto o MRS teve média de 26,1, sugerindo sintomas climatéricos de intensidade moderada, sobretudo nos domínios somatovegetativo e psicológico. Mulheres com menos de cinquenta anos apresentaram melhores escores no SQoL-F, porém não houve associação significativa entre os resultados do MRS e as variáveis sociodemográficas ou reprodutivas. Não foi observada correlação entre a intensidade dos sintomas e a qualidade de vida sexual. **Conclusão:** Apesar da sobrecarga sintomática, as mulheres mantêm uma percepção positiva da sexualidade, influenciada por fatores subjetivos e culturais. O estudo reforça a necessidade de estratégias de cuidado integral, humanizado e culturalmente sensível, além do uso de instrumentos validados, para apoiar práticas clínicas e políticas públicas voltadas à saúde da mulher no climatério.

Descritores: Menopausa; Saúde Sexual; Saúde da Mulher; Qualidade de Vida; Vulnerabilidade.

RESUMEN

Objetivo: evaluar la calidad de vida sexual y los impactos de la menopausia en mujeres atendidas durante una expedición voluntaria en Conde, Paraíba. **Método:** Estudio observacional, transversal y cuantitativo, realizado con cincuenta mujeres en diferentes fases del climaterio y de la menopausia. Se aplicaron los instrumentos validados SQoL-F y MRS mediante entrevistas individuales. El análisis estadístico se llevó a cabo en SPSS 26, utilizando pruebas no paramétricas, con un nivel de significancia del 5%. **Resultados:** La muestra presentó una media de edad de 46,18 años, predominantemente mujeres solteras (70%) y con dos hijos (88%). La puntuación media del SQoL-F fue de 85,3, indicando una buena percepción de la calidad de vida sexual, mientras que el MRS presentó una media de 26,1, sugiriendo síntomas climatéricos de intensidad moderada, especialmente en los dominios somatovegetativo y psicológico. Las mujeres menores de cincuenta años presentaron mejores puntuaciones en el SQoL-F; sin embargo, no se observó asociación significativa entre los resultados del MRS y las variables sociodemográficas o reproductivas. No se identificó correlación entre la intensidad de los síntomas y la calidad de vida sexual. **Conclusión:** A pesar de la sobrecarga sintomática, las mujeres mantienen una percepción positiva de la sexualidad, influenciada por factores subjetivos y culturales. El estudio refuerza la necesidad de estrategias de atención integral, humanizada y culturalmente sensible, además del uso de instrumentos validados, para apoyar prácticas clínicas y políticas públicas orientadas a la salud de la mujer durante el climaterio.

Descriptores: Menopausia; Salud Sexual; Salud de la Mujer; Calidad de Vida; Vulnerabilidad.

INTRODUCTION

Menopause, defined as the absence of menstruation for at least 12 consecutive months, generally occurs between 48 and 52 years of age and marks the end of a woman's reproductive phase. It is a natural physiological process resulting from progressive ovarian failure and the consequent decline in estrogen levels. Although expected, this transition is frequently accompanied by physical, hormonal, and emotional changes that affect women's health and quality of life⁽¹⁾.

Within this context, the climacteric period, which encompasses the transition from the reproductive to the non-reproductive stage, is characterized by symptoms that can be classified into three main domains: somatovegetative, psychological, and urogenital. These symptoms include hot flashes, night sweats, headaches, sleep disturbances, irritability, anxiety, depression, dyspareunia, vaginal atrophy, and decreased libido⁽²⁻⁴⁾.

Consequently, female sexuality occupies a central role, as it represents an essential dimension of human life that extends beyond physical well-being to encompass emotional, relational, and social balance. The World Health Organization (WHO) defines sexual health as a state of physical, emotional, mental, and social well-being related to sexuality, rather than merely the absence of disease or dysfunction⁽⁵⁾. In this regard, hormonal changes, physiological alterations, chronic conditions, and psychosocial factors associated with menopause may impair female sexual function, resulting in sexual dissatisfaction, relationship difficulties, reduced self-esteem, and diminished overall quality of life^(1,6).

Despite its importance, female sexuality during the climacteric period remains surrounded by social taboos and is frequently neglected within healthcare services, particularly in socially vulnerable settings. Barriers such as misinformation, limited access to specialized care, and the lack of qualified listening contribute to the invisibility of sexual complaints, hindering proper diagnosis and treatment^(7,8). This scenario highlights the need to expand understanding of the effects of menopause and their relationship with women's sexual lives, considering both clinical and sociocultural dimensions.

Validated instruments such as the Menopause Rating Scale (MRS) and the Sexual Quality of Life – Female (SQoL-F) questionnaire provide structured and comparable assessments of the impact of menopause on overall

health and sexual well-being. The MRS evaluates the severity of somatovegetative, psychological, and urogenital symptoms, whereas the SQoL-F captures women's perceptions of their sexual quality of life, encompassing emotional, relational, and functional aspects^(9,10).

Using standardized instruments in socially vulnerable populations enables a better understanding of health inequalities, particularly in regions with limited access to healthcare services. In such settings, socioeconomic factors may intensify the effects of the climacteric period, making it essential to contextualize investigations within local realities.

Conde, a city located on the southern coast of Paraíba, Brazil, has an estimated population of 27,605 inhabitants, approximately 51% of whom are women⁽¹¹⁾. Conde is characterized by marked socioeconomic inequality, cultural diversity, and limited access to essential public services, particularly healthcare and social protection. With a population of approximately 27,000 residents, nearly half of whom are women, Conde is home to quilombola communities, Indigenous populations, and rural settlements, highlighting additional challenges related to social inclusion and equity. The absence of specialized services for women experiencing violence and the dependence on neighboring cities for emergency care further exacerbate local vulnerabilities affecting women⁽¹²⁾.

In this context, volunteer healthcare expeditions organized by academic institutions have gained importance as mechanisms for health promotion while also providing practical and humanized training opportunities for students through university extension programs that integrate teaching, research, and healthcare delivery.

Health promotion, the guiding principle of these initiatives, aims to ensure access to healthcare even among vulnerable populations since health is a fundamental right guaranteed to all Brazilian citizens.

Scientific research also plays a prominent role because it addresses specific social realities that remain underexplored. In this regard, questionnaires serve as valuable tools for collecting epidemiological and social data, thereby supporting scientific investigations. Furthermore, there is growing interest in understanding women's health not only through associated social determinants but also through the quality of life experienced by women in their daily lives, thereby enriching academic knowledge. Volunteer work and research therefore constitute fundamental pillars that enable social institutions and healthcare students to allocate resources appropriately, make evidence-based institutional decisions, and develop effective clinical reasoning in the field of women's health⁽¹³⁾.

Despite the growing body of research on menopause and quality of life, studies involving socially vulnerable populations remain scarce, particularly in regions with limited access to healthcare services. This gap restricts the understanding of the impact of the climacteric period in these specific contexts. Therefore, this study aimed to evaluate sexual quality of life and the impact of menopause across the somatovegetative, psychological, and urogenital domains among women receiving clinical care during a volunteer healthcare expedition in the city of Conde, Paraíba, Brazil.

METHOD

This was an observational, cross-sectional study with a quantitative approach, conducted in July 2025 in the city of Conde, located in Northeastern Brazil and part of the Metropolitan Region of João Pessoa, with an estimated population of approximately 27,000 inhabitants according to data from the Brazilian Institute of Geography and Statistics (IBGE). The study included 50 women at different stages of the climacteric period and menopause. Participants were recruited through non-probability convenience sampling in primary healthcare services, including Primary Health Care Units (PHCUs). The inclusion criteria were age ≥ 40 years, a history of irregular or absent menstrual cycles, and agreement to participate through the signing of a written informed consent form. Women with a history of hysterectomy, bilateral oophorectomy, or severe clinical conditions that could impair their understanding of or ability to respond to the questionnaires were excluded.

To characterize the sample, a structured questionnaire was administered to collect sociodemographic and reproductive information, including age, marital status, age at sexual debut, and number of children. The sample size was determined by convenience, based on the number of eligible women available during the volunteer healthcare expedition. Therefore, all women who met the inclusion criteria and agreed to participate were enrolled. No a priori sample size calculation was performed, as the study had an exploratory and descriptive nature.

Sexual quality of life was assessed using the SQoL-F, originally developed by Symonds⁽⁹⁾ and subsequently translated, culturally adapted, and validated for the Brazilian population. The instrument comprises domains that assess perceptions of sexual health^(14,15).

The severity of menopause-related symptoms was assessed using the MRS, originally developed and standardized in Germany and subsequently translated and validated in several countries, including Brazil. Specifically, the instrument evaluates three domains: somatovegetative, psychological, and urogenital symptoms^(15,16).

Data collection was conducted individually in a private setting to ensure confidentiality and participant privacy. The instruments were administered by previously trained researchers following a standardized training process

lasting approximately two hours, during which eligibility criteria for interviewers were established to ensure procedural standardization and reliability. Interviews lasted approximately 30 minutes and followed a fixed sequence of instrument administration established in the methodological protocol to minimize potential bias related to question order.

Data were entered into an electronic spreadsheet and analyzed using IBM SPSS Statistics for Windows, version 26.0 (IBM Corp., Armonk, N.Y., USA).

Initially, descriptive analyses were performed, with categorical variables presented as absolute and relative frequencies and continuous variables summarized using measures of central tendency (mean and median) and dispersion (standard deviation and 95% confidence interval).

The normality of SQoL-F and MRS scores was assessed using the Kolmogorov-Smirnov test (Table 3). Since data did not follow a normal distribution, nonparametric tests were used for inferential analyses.

- Comparisons between two independent groups (e.g., age group, marital status, and age at sexual debut) were performed using the Mann-Whitney U test (Tables 4 and 5);
- Comparisons involving three or more categories (e.g., number of children) were conducted using the Kruskal-Wallis test (Tables 4 and 5);
- Associations between questionnaire scores were evaluated using Spearman's rank correlation coefficient (Table 6).

The significance level was set at 5% ($p < 0.05$).

The study was conducted in accordance with Resolution No. 466/2012 of the Brazilian National Health Council and was approved by the Research Ethics Committee under approval number 7.644.396. All participants provided written informed consent before enrollment in the study.

RESULTS

Table 1 summarizes the sociodemographic and reproductive characteristics of the participants in the study conducted in Conde, Paraíba, comprising a total sample of 50 women. The mean age of the participants was 46.18 years (95% CI: 43.54-48.54), with a median of 49 years and a standard deviation of 9.29, indicating a sample concentrated around the menopausal transition period.

When categorized by age, most participants were younger than 50 years (64.0%; 95% CI: 50.2-76.2), whereas 36.0% (95% CI: 23.8-49.8) were aged 50 years or older, reflecting the inclusion of both women in the climacteric period and those with established menopause.

Table 1. Sociodemographic and reproductive characteristics of study participants under the effects of menopause. Conde, Paraíba, Brazil, 2025 ($n = 50$).

	N (%)	95% CI	Mean (95% CI)	Med	SD
Age group			46.18(43.54-48.54)	49.00	9.29
<50 years	32(64.0)	(50.2-76.2)			
≥50 years	18(36.0)	(23.8-49.8)			
Marital status					
Married	15(30.0)	(18.7-43.6)			
Single	35(70.0)	(56.4-81.3)			
Have you started your sexual life? If yes, at what age?			20.58(19.08-22.08)	20.50	5.29
<20 anos	23(46.0)	(32.7-59.7)			
≥20 anos	27(54.0)	(40.3-67.3)			
Number of children					
0	1(2.0)	(0.2-9.0)			
2	44(88.0)	(76.9-94.8)			
3	3(6.0)	(1.7-15.2)			
4	1(2.0)	(0.2-9.0)			
8	1(2.0)	(0.2-9.0)			

Source: Author's own elaboration.

¹95% CI: Confidence interval for proportion.

²95% CI: Confidence interval for mean.

Med: Median.

SD: Standard Deviation.

Regarding marital status, single women predominated (70.0%; 95% CI: 56.4-81.3), compared with 30.0% who were married (95% CI: 18.7-43.6). This predominance may be related to sociocultural and economic characteristics of the region and may also have implications for social support networks and experiences related to aging and menopause.

The mean age at sexual debut was 20.58 years (95% CI: 19.08-22.08), with a median of 20.5 years and a standard deviation of 5.29. Most participants reported initiating sexual activity at age 20 years or older (54.0%; 95% CI: 40.3-67.3), whereas 46.0% reported sexual debut before the age of 20 years (95% CI: 32.7-59.7). This finding suggests a pattern of sexual initiation similar to that reported in Brazilian population-based studies, in which the onset of sexual activity typically occurs between 17 and 21 years of age⁽¹⁸⁾.

Regarding parity, most participants had two children (88.0%; 95% CI: 76.9-94.8). The remaining categories were sparsely represented, with 6.0% reporting three children, whereas women with no children, four children, or eight children each accounted for 2.0% of the sample. These findings suggest that the study population was composed predominantly of women with low to moderate parity, a factor that may be relevant in studies addressing reproductive health and the effects of menopause.

Table 2. Score distribution of the SQoL-F and MRS questionnaires among study participants under the effects of menopause. Conde, Paraíba, Brazil, 2025 ($n = 50$).

	Mean (95% CI)	Med	SD
Sexual Quality of Life – Female (SQoL-F)	85.32(80.34-90.34)	86.50	17.53
Menopause Rating Scale – MRS	26.08(23.46-28.46)	25.50	9.23
Somato-vegetative	10.54(9.49-11.49)	11.00	3.69
Psychological	10.56(9.19-11.19)	12.00	4.83
Urogenital	5.36(4.29-6.29)	4.00	3.76

Source: Author's own elaboration.

¹95% CI: Confidence interval for mean.

Med: Median.

SD: Standard Deviation.

Table 2 presents the mean scores obtained from the administration of the SQoL-F and MRS among the 50 participants. The findings provide insight into both sexual quality of life and menopause-related symptomatology.

For the SQoL-F, which assesses female sexual quality of life, the mean score was 85.32 points (95% CI: 80.34-90.34), with a median of 86.50 and a standard deviation of 17.53.

In contrast, the MRS, which evaluates the severity of menopausal symptoms, yielded a mean total score of 26.08 points (95% CI: 23.46-28.46), with a median of 25.50 and a standard deviation of 9.23. On average, the participants experienced moderate menopausal symptom severity.

The highest mean score was observed in the psychological domain, with a mean of 10.56 points (95% CI: 9.19-11.19) and a median of 12.0. Since the maximum score for this domain is 16, these values indicate a substantial burden of symptoms such as irritability, mood changes, anxiety, and mental fatigue. The somatovegetative domain showed a similar mean score of 10.54 points (95% CI: 9.49-11.49), with a median of 11.0, reflecting symptoms such as hot flashes, sleep disturbances, and musculoskeletal pain, which are commonly reported during the climacteric period. The urogenital domain presented the lowest mean score, at 5.36 points (95% CI: 4.29-6.29), with a median of 4.0, suggesting that symptoms such as vaginal dryness and urinary complaints were less prevalent or less severe among the participants.

Before conducting comparative analyses, the Kolmogorov-Smirnov test was applied to assess the normality of the instrument scores, adopting $p < 0.05$ as the criterion for rejecting the null hypothesis of normal distribution. The results demonstrated non-normality across all datasets. The SQoL-F yielded a test statistic of 0.130 ($p = 0.035$), whereas the total MRS score yielded a statistic of 0.135 ($p = 0.023$). Among the MRS domains, the values were 0.125 ($p = 0.047$) for the somatovegetative domain, 0.177 ($p < 0.001$) for the psychological domain, and 0.161 ($p = 0.002$) for the urogenital domain. Accordingly, nonparametric tests were selected for subsequent comparative analyses.

Table 3. Comparative analysis between the sociodemographic and reproductive profile and the SQoL-F scores of study participants under the effects of menopause. Conde, Paraíba, Brazil, 2025 ($n = 50$).

	Sexual Quality of Life – Female (SQoL-F)		
	Mean $\pm$ SD	Med	p-value ¹
Age group			0.022
<50 years	89.81 $\pm$ 14.92	94.00	
$\geq$ 50 years	77.33 $\pm$ 19.35	74.50	
Marital status			0.907
Married	84.87 $\pm$ 19.65	89.00	
Single	85.51 $\pm$ 16.84	84.00	
Have you started your sexual life? If yes, at what age?			0.477
<20 years	84.00 $\pm$ 18.05	89.00	
$\geq$ 20 years	86.44 $\pm$ 17.33	86.00	
Numbers of children			0.828 ²
0	79.00 $\pm$	79.00	
2	84.61 $\pm$ 18.35	85.00	
3	93.00 $\pm$ 5.29	95.00	
4	102.00 $\pm$	102.00	
8	83.00 $\pm$	83.00	

Source: Author's own elaboration.

¹ Mann-Whitney U test, at a 5% significance level.

² Kruskal-Wallis test, at a 5% significance level.

Table 3 presents the comparison of SQoL-F scores according to the participants' sociodemographic and reproductive characteristics. Because the data did not follow a normal distribution, the Mann-Whitney U and Kruskal-Wallis tests were employed, adopting a significance level of 5%.

A statistically significant difference was observed according to age group ($p = 0.022$). Higher scores were found among women younger than 50 years (89.81 $\pm$ 14.92; median = 94.00) compared with those aged 50 years or older (77.33 $\pm$ 19.35; median = 74.50).

No significant differences were observed according to marital status ($p = 0.907$). Married women (84.87 $\pm$ 19.65; median = 89.00) and single women (85.51 $\pm$ 16.84; median = 84.00) exhibited similar scores. These findings suggest that sexual quality of life was not directly associated with marital status in the present sample and may instead be influenced by individual, subjective, and psychosocial factors beyond relationship status, although this interpretation should be approached with caution.

Similarly, no statistically significant differences were observed according to age at sexual debut ($p = 0.477$). Women who initiated sexual activity before age 20 years had a mean score of 84.00 $\pm$ 18.05 (median = 89.00), whereas those who initiated at age 20 years or later had a mean score of 86.44 $\pm$ 17.33 (median = 86.00). This finding suggests that the timing of sexual initiation did not substantially influence current perceptions of sexual quality of life.

Finally, parity was not significantly associated with SQoL-F scores ($p = 0.828$). Although mean scores varied from 79.00 among women without children to 102.00 among women with four children, the low frequency of some categories (e.g., only one participant with four or eight children) limits the robustness of these comparisons and precludes definitive conclusions.

Table 4. Comparative analysis between the sociodemographic and reproductive profile and the MRS scores of study participants under the effects of menopause. Conde, Paraíba, Brazil, 2025 ($n = 50$).

	Menopausa Rating Scale – MRS			Somato-vegetative			Psychological			Urogenital		
	Mean $\pm$ SD	Med	p-value ¹	Mean $\pm$ SD	Med	p-value ¹	Mean $\pm$ SD	Med	p-value ¹	Mean $\pm$ SD	Med	p-value ¹
Age group			0.517			0.903			0.887			0.185
<50 years	26.38 $\pm$ 9.93	26.50		10.50 $\pm$ 3.84	11.00		10.47 $\pm$ 5.25	12.00		5.81 $\pm$ 3.98	6.00	
$\geq$ 50 years	25.56 $\pm$ 8.07	25.00		10.61 $\pm$ 3.50	10.50		10.72 $\pm$ 4.13	12.50		4.56 $\pm$ 3.28	3.50	
Marital status			0.641			0.798			0.823			0.262
Married	25.40 $\pm$ 8.65	25.00		10.60 $\pm$ 3.33	10.00		11.13 $\pm$ 3.98	12.00		6.20 $\pm$ 3.69	6.00	
Single	26.37 $\pm$ 9.58	26.00		10.51 $\pm$ 3.88	11.00		10.31 $\pm$ 5.19	13.00		5.00 $\pm$ 3.78	4.00	
Have you started your sexual life? If yes, at what age?			0.689			0.358			0.353			0.883
<20 years	26.78 $\pm$ 9.43	26.00		11.09 $\pm$ 3.72	11.00		11.13 $\pm$ 4.93	13.00		5.35 $\pm$ 3.49	5.00	
$\geq$ 20 years	25.48 $\pm$ 9.19	25.00		10.07 $\pm$ 3.67	10.00		10.07 $\pm$ 4.79	12.00		5.37 $\pm$ 4.04	4.00	
Number of children			0.783 ²			0.854 ²			0.417 ²			0.234 ²
0	23.00 $\pm$	23.00		9.00 $\pm$	9.00		7.00 $\pm$	7.00		0.00 $\pm$	0.00	
2	26.64 $\pm$ 9.37	26.00		10.50 $\pm$ 3.73	11.00		11.02 $\pm$ 4.50	12.50		5.43 $\pm$ 3.63	4.50	
3	20.00 $\pm$ 11.14	22.00		10.67 $\pm$ 5.13	12.00		4.67 $\pm$ 8.08	0.00		4.67 $\pm$ 4.73	3.00	
4	22.00 $\pm$	22.00		14.00 $\pm$	14.00		8.00 $\pm$	8.00		12.00 $\pm$	12.00	
8	27.00 $\pm$	27.00		10.00 $\pm$	10.00		14.00 $\pm$	14.00		3.00 $\pm$	3.00	

Source: Author's own elaboration.

¹ Mann-Whitney test, at a 5% significance level.

² Kruskal-Wallis test, at a 5% significance level.

Table 4 presents the comparative analysis between sociodemographic and reproductive variables and MRS scores, including its somatovegetative, psychological, and urogenital domains. The Mann-Whitney U and Kruskal-Wallis tests were used due to the absence of normality.

No statistically significant differences were observed between women younger than 50 years and those aged 50 years or older regarding total MRS scores ($p = 0.517$) or any specific domain (somatovegetative: $p = 0.903$; psychological: $p = 0.887$; urogenital: $p = 0.185$). Nevertheless, women younger than 50 years presented slightly higher mean scores for both the total MRS score (26.38 ± 9.93) and the urogenital domain (5.81 ± 3.98) than women aged 50 years or older (25.56 ± 8.07 and 4.56 ± 3.28 , respectively), suggesting a trend toward greater symptom burden among younger women, possibly because they were experiencing a more active menopausal transition.

Likewise, no significant differences were found according to marital status (total MRS: $p = 0.641$). Married and single women exhibited similar scores in the somatovegetative (10.60 ± 3.33 vs. 10.51 ± 3.88), psychological (11.13 ± 3.98 vs. 10.31 ± 5.19), and urogenital domains (6.20 ± 3.69 vs. 5.00 ± 3.78). These findings suggest that marital status alone was not a determining factor in menopausal symptom severity.

Age at sexual debut was also not significantly associated with MRS scores. Nevertheless, women who initiated sexual activity before age 20 years presented slightly higher mean total scores (26.78 ± 9.43) and psychological domain scores (11.13 ± 4.93) than those who initiated sexual activity at age 20 years or later (25.48 ± 9.19 and 10.07 ± 4.79 , respectively). Although not statistically significant, these differences may suggest varying psychosocial and relational influences on the experience of menopausal symptoms.

No significant differences were found according to parity (total MRS: $p = 0.783$). However, the highest mean score was observed among women with two children (26.64 ± 9.37), whereas women with three children presented lower scores (20.00 ± 11.14). These findings should be interpreted cautiously, as categories with very small sample sizes, such as women with four or eight children, reduce statistical reliability.

Table 5. Correlation analysis between SQoL-F and MRS scores of study participants under the effects of menopause. Conde, Paraíba, Brazil, 2025 ($n = 50$).

		A	B	C	D	E
Sexual Quality of Life – Female (SQoL-F)(A)	CC	1.000	-0.009	0.022	-0.120	0.199
	p-value	-	0.950	0.879	0.407	0.166
Menopause Rating Scale – MRS(B)	CC	-	1.000	,765**	,802**	,442**
	p-value	-	-	0.000	0.000	0.001
Somato-vegetative (C)	CC	-	-	1.000	,456**	,338*
	p-value	-	-	-	0.001	0.016
Psychological (D)	CC	-	-	-	1.000	0.168
	p-value	-	-	-	-	0.245
Urogenital (E)	CC	-	-	-	-	1.000

Source: Author's own elaboration.

*Spearman correlation.

Table 5 presents the correlation analysis between SQoL-F and MRS scores, including their respective domains, using Spearman's correlation coefficient, which is appropriate for non-normally distributed data.

No statistically significant correlation was identified between SQoL-F and the total MRS score ($r = -0.009$; $p = 0.950$), nor between SQoL-F and the somatovegetative ($r = 0.022$; $p = 0.879$), psychological ($r = -0.120$; $p = 0.407$), or urogenital domains ($r = 0.199$; $p = 0.166$). Within the present sample, perceptions of sexual quality of life were not directly associated with menopausal symptom severity, which potentially reflects the influence of multiple individual, contextual, and life-course factors on the experience of sexuality.

Conversely, strong and statistically significant correlations were observed between the total MRS score and its constituent domains. Notably, positive correlations were found between the total MRS score and the somatovegetative domain ($r = 0.765$; $p < 0.001$) and between the total MRS score and the psychological domain ($r = 0.802$; $p < 0.001$), supporting the internal consistency of the instrument. The urogenital domain also showed a positive correlation with the total MRS score ($r = 0.442$; $p = 0.001$), although of moderate magnitude.

Significant correlations were also observed among the MRS domains themselves, including the relationship between the somatovegetative and psychological domains ($r = 0.456$; $p = 0.001$) and between the somatovegetative and urogenital domains ($r = 0.338$; $p = 0.016$). These findings suggest that physical, emotional, and urogenital symptoms tend to coexist during menopause, reflecting the multifactorial nature of this transition. In contrast, the psychological and urogenital domains were not significantly correlated ($r = 0.168$; $p = 0.245$), suggesting that these dimensions may be experienced more independently by participants.

DISCUSSION

The findings revealed an overall positive perception of sexual quality of life despite the high intensity of climacteric symptoms, particularly within the somatovegetative and psychological domains. The analysis of this population subgroup, composed of women who voluntarily sought care during a healthcare outreach initiative, showed that factors such as socioeconomic vulnerability and limited access to healthcare services may simultaneously influence both the experience of sexuality and the severity of menopause-related symptoms.

This finding may be understood in light of the sociocultural context of the study population. In settings characterized by greater social vulnerability, perceptions of sexual quality of life may not depend exclusively on the absence of physical symptoms but may also be influenced by factors such as cultural resilience, adaptation to living conditions, and reduced expectations regarding the climacteric period. Furthermore, in contexts where basic needs such as access to healthcare, safety, and financial stability are prioritized, concerns related to sexuality may be relativized or considered less important by women themselves. Therefore, in the present study, the positive perception of sexual life may reflect not only objective well-being but also coping and adaptation mechanisms developed throughout life in vulnerable social contexts⁽¹⁸⁾.

The mean SQoL-F score (85.32 points) was located in the upper range of the scale, suggesting a generally favorable perception of sexual well-being, even in a setting characterized by socioeconomic vulnerability and structural barriers to healthcare access. This finding challenges the assumption that unfavorable social determinants uniformly compromise female sexuality and supports the notion that subjective factors, such as resilience, self-esteem, and social support, play a central role in the experience of sexuality^(9,10). These results further indicate that sexual quality of life was not

directly associated with marital status in the studied sample and may instead be influenced by individual, subjective, and psychosocial factors beyond relationship status, although this interpretation should be approached with caution.

However, the relatively high standard deviation indicates substantial heterogeneity among participants, suggesting the existence of subgroups with less satisfactory experiences and reinforcing the need for individualized approaches⁽¹⁹⁾. An association was also observed between age and sexual quality-of-life scores, with younger women demonstrating more favorable outcomes. This finding may be related to the influence of aging and progression through the climacteric period on perceptions of sexuality.

In contrast, the MRS results (mean score: 26.08 points) revealed a considerable burden of climacteric symptoms, particularly within the somatovegetative and psychological domains. Hot flashes, joint pain, and fatigue were among the most frequently reported symptoms, consistent with studies describing these manifestations as highly prevalent and disabling during menopause^(20,21). Within the psychological domain, the high frequency of irritability, anxiety, and physical or mental exhaustion underscores the emotional vulnerability associated with this stage of life, which has been identified in the literature as a risk factor for depressive and anxiety symptoms^(21,22). These findings suggest that although sexuality was perceived positively, it coexisted with substantial symptom-related complaints that may adversely affect overall quality of life. Notably, contemporary lifestyle factors, including the high consumption of ultra-processed foods and exposure to microplastics as well as the widespread use of cosmetics and personal care products containing parabens, may contribute to the development of early menopausal symptoms through excessive exposure to endocrine-disrupting chemicals⁽²³⁾.

Although the urogenital domain yielded lower mean scores, these symptoms should not be overlooked. Complaints such as vaginal dryness and sexual difficulties were reported by a considerable proportion of participants, which may indicate the presence of Genitourinary Syndrome of Menopause (GSM), a condition that is frequently underreported because cultural and social barriers often hinder open discussions about sexuality⁽²⁴⁾. This discrepancy between the lower urogenital scores observed in the MRS and the positive perceptions reported in the SQoL-F may be related to difficulties in recognizing, naming, or expressing sexual complaints in more conservative settings, reinforcing the importance of sensitive and nonjudgmental approaches to women's sexual health^(25,26).

The literature indicates that female sexuality is multifactorial, multidimensional, and shaped by biological, cultural, and social factors^(6,27). In this regard, Leininger's Theory of Culture Care Diversity and Universality (TCCDU) provides a valuable framework for interpreting the findings of the present study⁽²⁸⁾. By emphasizing that healthcare should be culturally congruent, this theory makes it possible to recognize that the ways in which women perceive and cope with menopausal symptoms are influenced by their life contexts, beliefs, and collective experiences. This perspective is particularly relevant in socially vulnerable populations, such as the one investigated in the present study, where limited access to specialized healthcare services may exacerbate physical and emotional symptoms while also reducing healthcare-seeking behaviors⁽²⁹⁾.

Volunteer healthcare expeditions, such as the one conducted in Conde, represent important spaces for care delivery that provide not only clinical assistance but also active listening and support for women's health-related concerns. Such initiatives reinforce the importance of incorporating sexual health and climacteric care into primary healthcare programs, particularly in areas characterized by greater social inequality^(13,30).

The findings of this study demonstrate that although many women reported satisfaction regarding the pace, frequency, desire, and overall quality of their sexual relationships, they simultaneously experienced a substantial burden of climacteric symptoms, including vaginal dryness, excessive sweating, and irritability, which may compromise overall well-being and require targeted interventions. These findings highlight the need for strategies such as health education initiatives, multidisciplinary follow-up, psychosocial support, support groups, and individualized assessments for hormonal and non-hormonal therapies, particularly in socially vulnerable settings.

Therefore, the present study underscores the importance of comprehensive and transcultural care strategies that address not only the physical and psychological symptoms of menopause but also the subjective and relational dimensions of sexuality. The integration of instruments such as the MRS and SQoL-F into clinical practice may support more humanized, equitable, and patient-centered care, contributing to the development of more effective and culturally sensitive public policies for women's health.

Among the study limitations, it is important to highlight the relatively small sample size, the absence of complete sociodemographic information for some participants (including age data), which limited more comprehensive analyses, and the cross-sectional design, which precludes the establishment of temporal or causal relationships between the variables examined. Furthermore, the specific profile of women who sought care during the healthcare expedition may not fully represent the broader local population. Nevertheless, the findings provide relevant contributions to the understanding of menopause and sexual quality of life in socially vulnerable contexts.

CONCLUSION

This study demonstrated that despite the presence of climacteric symptoms, particularly within the somatovegetative and psychological domains, women receiving care during a volunteer healthcare expedition in Conde, Paraíba, reported an overall positive perception of sexual quality of life. Age was found to influence perceptions of sexuality, with younger women (< 50 years) achieving higher SQoL-F scores. In contrast, marital status, age at sexual debut, and number of children were not identified as determining factors.

The findings reinforce that the menopausal experience is multifactorial and shaped by biological, psychological, and sociocultural influences. They further demonstrate that positive perceptions of sexual well-being may coexist with a substantial burden of climacteric symptoms. The absence of a correlation between SQoL-F and MRS scores suggests that additional individual, emotional, and social factors play an important role in maintaining sexual quality of life during this stage of life.

Furthermore, the study highlights the importance of comprehensive and culturally sensitive care strategies, such as healthcare expeditions and humanized approaches within primary healthcare, which facilitate support, health education, and the identification of complaints that often remain underreported. Such interventions may contribute to the promotion of sexual health and overall well-being among women undergoing the menopausal transition, particularly in socially vulnerable settings.

In summary, the present investigation emphasizes the importance of incorporating validated instruments such as the MRS and SQoL-F into clinical practice to enable a comprehensive assessment of the impacts of menopause and to support the development of more equitable, culturally sensitive, and woman-centered public policies. Given the limitations related to sample size and the specific characteristics of the study population, future research should include larger samples and explore additional psychosocial variables that may influence sexual quality of life during menopause.

REFERENCES

1. Federação Brasileira das Associações de Ginecologia e Obstetrícia (BR). Tratado de ginecologia da FEBRASGO. 2nd ed. São Paulo: Manole; 2023.
2. Vasconcelos P, Carrito ML, Quinta-Gomes AL, Patrão AL, Nóbrega CA, Costa PA, et al. Associations between sexual health and well-being: a systematic review. *Bull World Health Organ*. 2024;102(12):873-87. Disponível em: <http://dx.doi.org/10.2471/BLT.24.291565>
3. Silva M-NM, Brito LMO, Chein, MBC, Brito LGO, Navarro, PAAS. Depressão em mulheres climatéricas: análise de mulheres atendidas ambulatorialmente em um hospital universitário no Maranhão. *Rev Psiquiatr Rio Gd Sul*. 2008;30(2):150-4.
4. Valadares AL, Pinto-Neto AM, Conde DM, O MJ, Sousa MH, Costa-Paiva L. Depoimentos de mulheres sobre a menopausa e o tratamento de seus sintomas. *Rev Assoc Med Bras*. 2008;54(4):299-304. Disponível em: <https://doi.org/10.1590/S0104-42302008000400013>
5. Organização Mundial da Saúde. Saúde sexual, direitos humanos e a lei [Internet]. Genebra: OMS; 2015 [citado 2 jul 2025]. Disponível em: <https://apps.who.int/iris/bitstream/handle/10665/175556/9786586232363-por.pdf>
6. Parish SJ, Simon JA, Davis SR, Giraldo A, Goldstein I, Goldstein SW, et al. International Society for the Study of Women's Sexual Health clinical practice guideline for the use of systemic testosterone for hypoactive sexual desire disorder in women. *J Sex Med*. 2021;18(5):849-67. Available from: <https://doi.org/10.1016/j.jsxm.2020.10.009>
7. Rios RR. Para um direito democrático da sexualidade. *Horiz Antropol*. 2006;12(26):71-100.
8. D'Souza P, Bailey JV, Stephenson J, Oliver S. Factors influencing contraception choice and use globally: a synthesis of systematic reviews. *Eur J Contracept Reprod Health Care*. 2022;27(5):364-72. Available from: <https://doi.org/10.1080/13625187.2022.2096215>
9. Symonds T, Boolell M, Quirk F. Development of a questionnaire on sexual quality of life in women. *J Sex Marital Ther*. 2005;31(5):385-97
10. Calil LN, Fernandes DSP, Hübner GSS, Buffon A, Cezar JS. Cuidado à saúde da mulher na extensão universitária: abordagem de uma experiência. *Rev Baiana Saúde Pública*. 2016;40(3):796-807. Disponível em: <https://doi.org/10.22278/2318-2660.2016.v40.n3.a2246>

11. Instituto Brasileiro de Geografia e Estatística (BR). Conde – PB: panorama [Internet]. 2025 [citado 2 Jul 2025]. Disponível em: <https://cidades.ibge.gov.br/brasil/pb/conde/panorama>
12. Maciel JC. Políticas públicas para mulheres em Conde – PB: um olhar sobre os desafios das mulheres na garantia de seus direitos [Trabalho de Conclusão de Curso]. João Pessoa (PB): Universidade Federal da Paraíba; 2018. Disponível em: <https://repositorio.ufpb.br/jspui/handle/123456789/14897>
13. Santana RR, Santana CCAP, Costa Neto SB, Oliveira EC. Extensão universitária como prática educativa na promoção da saúde. *Educ Real*. 2021;46(2):e98702. Disponível em: <https://doi.org/10.1590/2175-623698702>
14. Pereira AS, Souza WF. Adaptação transcultural e validade do *Questionnaire on Sexual Quality of Life – Female* (SQoL-F) para o Brasil. *J Bras Psiquiatr*. 2022;71(3):168-75. Disponível em: <https://doi.org/10.1590/0047-2085000000372>
15. Potthoff P, Heinemann LA, Schneider HP, Rosemeier, Hauser GA. Menopause-Rating-Skala (MRS II): methodische Standardisierung in der deutschen Bevölkerung. *Zentralbl Gynäkol*. 2000;122(5):280-6.
16. Heinemann LA, Potthoff P, Schneider HP. International versions of the Menopause Rating Scale (MRS). *Health Qual Life Outcomes*. 2003;1:28-30. Available from: <https://doi.org/10.1186/1477-7525-1-28>
17. Instituto Brasileiro de Geografia e Estatística (BR). Pesquisa Nacional de Saúde 2019: Ciclos de Vida. Rio de Janeiro: IBGE; 2021.
18. Araújo MN, Almeida BC, Pereira IMS, Pena TCN, Oliveira ES, Athayde ALM. A mulher e o climatério: uma revisão sistemática da produção científica brasileira de 2000 a 2022. *Rev Bras Educ Saúde Bem-Estar*. 2023;1(1). Disponível em: <https://doi.org/10.29327/2335218.1.1-11>
19. Arcos-Romero AI, Calvillo C. Sexual health and psychological well-being of women: a systematic review. *Healthcare (Basel)*. 2023;11(23):3025. Available from: <https://doi.org/10.3390/healthcare11233025>
20. Panay N, Ang SB, Cheshire R, Goldstein SR, Maki P, Nappi RE. Menopause and MHT in 2024: addressing the key controversies – an International Menopause Society White Paper. *Climacteric*. 2024;27(5):441-57. Available from: <https://doi.org/10.1080/13697137.2024.2394950>
21. Whiteley J, DiBonaventura M, Wagner JS, Alvir J, Shah S. The impact of menopausal symptoms on quality of life, productivity, and economic outcomes. *J Womens Health (Larchmt)*. 2013 Nov;22(11):983-990. Available from: <https://doi.org/10.1089/jwh.2012.3719>
22. Dennerstein L, Lehert P, Burger H. The relative contributions of the effect of age and menopause to the prevalence of depressive symptoms in mid-aged women. *J Affect Disord*. 2000;61(1-2):17-23.
23. Hong Y, Wu S, Wei G. Adverse effects of microplastics and nanoplastics on the reproductive system: a comprehensive review of fertility and potential harmful interactions. *Sci Total Environ*. 2023;903:166258. Available from: <https://doi.org/10.1016/j.scitotenv.2023.166258>
24. The NAMS 2020 GSM Position Statement Editorial Panel. The 2020 genitourinary syndrome of menopause position statement of The North American Menopause Society. *Menopause*. 2020;27(9):976-92. Available from: <https://doi.org/10.1097/GME.0000000000001609>
25. Lock M. Encounters with aging: mythologies of menopause in Japan and North America. Berkeley (CA): University of California Press; 1993.
26. Sievert LL, Obermeyer CM, Price K. Menopause in multicultural perspective. *Am J Hum Biol*. 2005;17(1):1-13.
27. Basson R, Berman J, Burnett A, Derogats L, Ferguson D, Fourcroy J, et al. Report of the international consensus development conference on female sexual dysfunction: definitions and classifications. *J Urol*. 2000;163(3):888-93.
28. Leininger M, Farland MR. Transcultural nursing: concepts, theories, research & practice. 3rd ed. New York: McGraw-Hill; 2002.
29. Parish SJ, Nassan FL, Gandhi J. Sexual dysfunction in women with comorbid medical conditions. *J Womens Health*. 2016;25(7):677-85.
30. Cabrera-Darias M, Marrero-Quevedo RJ. Motives, personality and subjective well-being in volunteering. *An Psicol*. 2015;31(3):791-801. Available from: <https://doi.org/10.6018/analesps.31.3.180921>

APPENDIX – EDITORIAL GUIDELINES

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Conflicts of Interest

All authors declare that they have no affiliations with or involvement in any organization or entity, whether financial or non-financial, with any interest in the subject matter discussed in this manuscript.

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Author Contributions

Sofia Liz Gutierrez Naila Albertina de Oliveira contributed to the study conception and design, data acquisition, analysis and interpretation, and manuscript drafting and revision. **Giannina Fernandes de Carvalho Juliatti** and **Camilly de Cássia Carbinatto** contributed to data acquisition, analysis, and interpretation. **Dyana Carolina Teixeira Trevisan** and **Bárbara Bueno Pereira Silvio Martins de Oliveira Nathália Carbinatti Franzini** contributed to the study conception and design.

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