Salud, Ciencia y Tecnología. 2025; 5:2226
doi: 10.56294/saludcyt20252226

ORIGINAL

Conductas de riesgo y calidad de vida en mujeres durante el climaterio en el noroeste de México: una mirada desde la ciencia humanista

Risk Behaviors and Quality of Life in Women During Climacteric in Northwestern Mexico: A Humanistic Science Perspective

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Cite as: Navarrete Melgar MG, Tirado Reyes RJ, Ortíz Fonseca DS, Medina Serrano JM, Noh-Moo PM, Castillo-Arcos L del C. Risk Behaviors and Quality of Life in Women During Climacteric in Northwestern Mexico: A Humanistic Science Perspective. Salud, Ciencia y Tecnología. 2025; 5:2226. https://doi.org/10.56294/saludcyt20252226

Submitted: 29-04-2025 **Revised:** 18-07-2025 **Accepted:** 21-09-2025 **Published:** 22-09-2025

Editor: Prof. Dr. William Castillo-González

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ABSTRACT

Introduction: climacteric is a transitional stage in women's lives, characterized by biological, psychological, and social changes that directly impact quality of life. In Mexico, this process is particularly relevant given the increasing number of women experiencing it and the need to understand its determinants from a holistic perspective.
Objective: to determine the factors and interrelationships that explain quality of life in women during climacteric in northwestern Mexico, adopting a humanistic science approach.
Method: an observational, descriptive, and cross-sectional study with correlational analysis and logistic regression was conducted. A sample of 380 women aged 45–60 years was selected through probabilistic stratified sampling at a Family Medicine Unit of the Mexican Institute of Social Security (IMSS) in Culiacán, Sinaloa. Data were collected using the CDP-9 form and the Menopause Rating Scale (MRS).
Results: unemployment and comorbidities significantly increased the likelihood of severe symptoms across somatic, psychological, and urogenital domains. Conversely, menstruation within the last 12 months acted as a protective factor in the psychological and urogenital dimensions. Multivariate models yielded AUC values ranging from 0,759 to 0,801, supporting their discriminative accuracy.
Conclusions: quality of life during climacteric emerges as a multidimensional phenomenon shaped by clinical and social determinants beyond hormonal decline. These findings highlight the need for integral and culturally sensitive interventions that address women's physical, psychological, and social health simultaneously.

Keywords: Climacteric; Menopause; Quality of Life; Risk Factors; Women's Health.

RESUMEN

Introducción: el climaterio constituye una etapa de transición en la vida de la mujer, marcada por cambios biológicos, psicológicos y sociales que inciden de manera directa en su calidad de vida. En México, este proceso cobra relevancia por el creciente número de mujeres que atraviesan esta etapa y por la necesidad de comprender sus determinantes desde un enfoque integral.

Objetivo: determinar los factores y las interrelaciones que explican la calidad de vida en mujeres durante el climaterio en el noroeste de México, bajo un enfoque de ciencia humanista.
Método: estudio observacional, descriptivo y transversal con análisis correlacional y regresión logística. Se incluyeron 380 mujeres entre 45 y 60 años, seleccionadas mediante muestreo probabilístico en una unidad de medicina familiar del IMSS en Culiacán, Sinaloa. La información se obtuvo con la cédula CDP-9 y la Menopause Rating Scale (MRS).
Resultados: se identificó que la inactividad laboral y la presencia de comorbilidades incrementaron la probabilidad de síntomas graves en las dimensiones somática, psicológica y urogenital. En contraste, la menstruación en los últimos 12 meses funcionó como factor protector en las esferas psicológica y urogenital. Los modelos multivariados alcanzaron valores de AUC entre 0,759 y 0,801, confirmando una capacidad discriminativa adecuada.
Conclusiones: la calidad de vida en el climaterio se configura como un fenómeno complejo en el que convergen determinantes sociales y clínicos, más allá de la esfera hormonal. Los hallazgos respaldan la necesidad de estrategias de intervención integrales y culturalmente pertinentes que atiendan de manera simultánea la salud física, psicológica y social de las mujeres.

Palabras clave: Climaterio; Menopausia; Calidad de Vida; Factores de Riesgo; Salud de la Mujer.

INTRODUCTION

Women's health has historically been a central focus of public policy and health science research, not only because of its role in reproduction and family care, but also because of the multiple biological transitions women face throughout their lives. Among these, the climacteric is a critical stage, characterized by endocrine, somatic, and psychosocial changes that directly influence quality of life. The World Health Organization (WHO) defines menopause as the permanent cessation of menstruation after 12 consecutive months without bleeding, resulting from the loss of ovarian follicular activity. It defines climacteric as the period preceding and following menopause, including perimenopause and postmenopause. This process occurs on average between the ages of 45 and 55, although genetic, environmental, and health factors can modify this range.[1,2]

Globally, it is estimated that by 2030, there will be more than 1,2 billion women aged 50 or older, many of whom will be in this transition.[2] In Mexico, the National Institute of Statistics and Geography (INEGI) reports that 26,1 % of the female population is 45 years of age or older, representing a significant group susceptible to experiencing the effects of climacteric and menopause.[3,4] This stage is associated with vasomotor symptoms, genitourinary alterations, changes in bone density, variations in body fat distribution, and mood swings, all of which have a potential impact on quality of life.[5,6]

From a public health perspective, climacteric poses significant challenges. The Pan American Health Organization (PAHO)[7] emphasizes that climacteric symptoms, such as hot flashes, night sweats, irritability, anxiety, and sleep disturbances, not only affect subjective well-being but can also impact women's work productivity and social participation. Furthermore, the impact varies according to the sociocultural context. While in some regions menopause is experienced as a natural process without stigma, in others it is associated with a loss of femininity and attractiveness, which influences the perception of quality of life.[8]

The concept of quality of life is understood as a person's subjective perception of their position in life, within the cultural and value framework in which they live, and in relation to their goals, expectations, and interests.[9] During the climacteric, this perception is modulated by biological factors and social determinants of health, such as family support, educational level, access to health services, and economic autonomy.[10,11] In the Mexican population, it has been shown that women with strong support networks and adequate coping strategies report a better quality of life, even in the face of intense symptoms.[12]

Physiologically, the climacteric involves a progressive decrease in estrogen, a key hormone in the regulation of the menstrual cycle, bone density, vascular elasticity, lipid metabolism, and neuroprotection.[13,14,15] This hormonal reduction causes symptoms such as hot flashes and night sweats, in addition to increasing the risk of osteoporosis, cardiovascular disease, and cognitive impairment.[16,17] Hormone replacement therapy has been considered the standard treatment for moderate to severe symptoms; however, its prolonged use is associated with risks such as deep vein thrombosis and breast cancer.[18,19]

Given these limitations, there has been growing interest in non-hormonal alternatives, especially phytoestrogens such as soy isoflavones and red clover, as well as the use of probiotics combined with bioactive compounds.[20,21,22,23] Clinical trials have shown that isoflavone supplementation can reduce the intensity of vasomotor symptoms and improve quality of life in perimenopausal and postmenopausal women.[24,25,26,27] In addition, combining them with probiotics has shown benefits for urogenital health and in reducing inflammatory markers.[28,29] However, the magnitude of the effects depends on the formulation, dose, and characteristics of

the population.[30,31,32]

At the same time, research has incorporated validated instruments that allow for the objective measurement of symptom intensity and its impact on daily life. Scales such as the Menopause Rating Scale and the Cervantes Scale have been widely used to assess physical and social dimensions in women from different contexts. In Latin America, differential patterns have been identified: in urban areas, reports of stress and sleep disturbances predominate, while in rural areas, physical symptoms are more frequently reported.

Despite these advances, a gap remains in the comprehensive understanding of how biological, psychological, and social factors interact to determine quality of life. Most studies focus on symptoms in isolation, without considering the complexity of the phenomenon.[37,38,39] This is relevant if we recognize that the experience of menopause is not homogeneous, but varies according to the age of onset, the duration of the transition, previous health status, and cultural environment.[40,41]

In Mexico, it has been documented that variables such as marital status, occupation, educational level, and family functionality are related to climacteric symptoms; however, studies have focused on describing prevalences or evaluating specific interventions, without delving into explanatory models that integrate these factors in relation to quality of life.[42,43]

Therefore, it is not enough to identify the elements that influence the climacteric experience, but to understand how they interact with each other to shape the quality of life during this period. This research addresses this gap by analyzing the interrelationships between biological, psychological, and social variables in Mexican women. Its relevance lies in the fact that the findings can serve as a basis for the design of clinical and public health strategies aimed at providing comprehensive care for this population. The question that guides this work is: What are the factors and interrelationships that explain the quality of life of women during the climacteric?

METHOD

This study was conducted using a quantitative, observational approach with a cross-sectional design, which integrated descriptive and correlational components, complemented by logistic regression analysis.[44] The research took place at Family Medicine Unit No. 55 of the Mexican Social Security Institute (IMSS), located in Culiacán, Sinaloa, during the period from July 2024 to June 2025. The reference population consisted of 6,029 women aged 45-60 who attended consultations at the institution during the study period. From this universe, a representative sample of 380 participants was calculated, obtained through stratified probability sampling.[44]

Women who were in the peri- or postmenopausal stage, with clinical manifestations compatible with the menopausal transition, such as hot flashes, alterations in the menstrual cycle, or six months or more without menstruation, and who were able to answer the quality of life questionnaire independently were considered for inclusion. Additionally, signing an informed consent form was required as a sign of voluntary acceptance.

As for exclusion criteria, women diagnosed with severe psychiatric illnesses (e.g., schizophrenia, decompensated bipolar disorder, or major depression with suicidal risk) were excluded, as these conditions could interfere with their understanding or completion of the instruments. Cases of advanced or uncontrolled chronic comorbidities such as heart failure, end-stage chronic kidney disease, or diabetes with severe complications were also excluded, as these conditions could bias the perception of quality of life. Similarly, women receiving hormone replacement therapy at the start of the study were omitted, as this treatment significantly modifies climacteric symptoms. Finally, the following were established as exit criteria: voluntary decision to leave the study, failure to complete questionnaires, initiation of hormone therapy during follow-up, or the onset of a serious illness that compromised continued participation.

Information was collected using two tools: a personal data form (CDP-9) and the *Menopause Rating Scale (MRS)*. The CDP-9 was used to collect sociodemographic and clinical variables, including age, marital status, educational level, occupation, comorbidities, history of hysterectomy, presence or absence of menstruation in the last 12 months, as well as tobacco and alcohol consumption. At the same time, the MRS scale was applied, an internationally recognized and validated questionnaire designed in the 1990s to assess the severity of menopausal symptoms and, through them, the quality of life during the climacteric. This scale consists of 11 items distributed across three dimensions: somatic, psychological, and urogenital, each rated on a scale from 0 (no symptoms) to 4 (maximum severity). The overall score ranges from 0 to 44, allowing symptoms to be classified as mild (0-11), moderate (12-22), severe (23-33), or very severe (34-44). To ensure the validity of the responses, each participant received a clear explanation of the instrument's content and the proper way to respond to it beforehand.[45]

Various studies have documented the reliability of the MRS, reporting internal consistency coefficients, both Cronbach's alpha and McDonald's omega, in a range of 0,79 to 0,80, which supports its relevance to the present context.[12,46] The data obtained were processed using the statistical program SPSS version 27 for iOS. Initially, descriptive analyses were performed with frequencies, percentages, measures of central tendency, and dispersion. Subsequently, nonparametric chi-square and logistic regression tests were applied,

with p-values less than 0,05 considered significant. To ensure the robustness of the logistic regression, the model's basic assumptions were verified. In particular, the possible presence of multicollinearity among the independent variables was evaluated by calculating the variance inflation factors (VIF), ensuring that they remained within acceptable ranges. Likewise, the standardized residuals were analyzed to identify atypical observations or those with a disproportionate influence on the model fit. The goodness of fit was corroborated through likelihood tests and the Hosmer-Lemeshow statistic, which ensured that the interpretation of the results was consistent and reliable.

Ethically, the research was conducted in accordance with the provisions of the General Health Law on Research Involving Human Subjects. The protocol was reviewed and approved by the IMSS Research and Ethics Committee, with institutional registration number R-2025-2506-024. The confidentiality of the information, the anonymity of the participants, and their right to freely withdraw from the study were guaranteed at all times, without this affecting the medical care they received.

RESULTS

The average age of the participants was $\bar{x}$ = 52,1; SD = 5,0. Upon reviewing the sociodemographic and clinical characteristics of the participants, it was observed that the vast majority were married women (72,9 %), while just over a quarter were single (27,1 %). In terms of occupation, slightly more than half of the women (57,4 %) reported being employed, while 42,6 % did not engage in paid work. In terms of education, the largest group had completed high school (41,1 %), followed by college (31,6 %) and middle school (20,3 %). It is striking that only 1,8 % had a postgraduate degree, and one woman reported no education. An important finding is the high prevalence of comorbidities (65,0 %), reflecting that two out of three women faced health problems in addition to the menopausal process. In contrast, a history of hysterectomy was rare (7,6 %), indicating that most women were going through menopause physiologically. Regarding menstruation in the last 12 months, almost two-thirds (63,9 %) reported no bleeding, which coincides with the transition to the postmenopausal stage, while 36,1 % still reported menstrual cycles. In terms of risk habits, tobacco use was present in 11,8 % of participants, and alcohol consumption in 26,3 %. When analyzing the results of the somatic dimension, it can be seen that almost half of the women (49,7 %) reported severe symptoms, while 32,1 % experienced moderate intensity symptoms. Only a smaller group (18,2 %) reported mild discomfort. A similar trend was observed in the psychological dimension: more than half of the women (51,3 %) reported severe pain, and one-third (33,2 %) reported moderate symptoms. Only 15,5 % reported a mild impact in this area. The urogenital dimension showed a different distribution. Here, moderate discomfort predominated (42,4 %), followed by 30,5 % who described it as mild and 27,1 % who considered it severe.

Table 1. Somatic quality of life according to sociodemographic characteristics

Marital status	Mild		Moderate		Severe		Very severe		x^2	p-value
	f	%	f	%	f	%	f	%		
Single	17	16,5	28	27,2	47	45,6	11	10,7	16,10	0,001
Married	63	22,7	115	41,5	89	32,1	10	3,6		
Occupation										
No	17	10,5	47	29	80	49,4	18	11,1	51,04	0,00
Yes	63	28,9	96	44	56	25,7	3	1,4		
Educational level										
None	1	100	0	0	0	0	0	0	82,63	0,000
Primary	1	5,3	2	10,5	12	63,2	4	21,1		
Secondary	10	13	22	28,6	32	41,6	13	16,9		
High school	21	13,5	71	45,5	61	39,1	3	1,9		
Bachelor's degree	43	35,8	46	38,3	30	25,0	1	0,8		
Postgraduate	4	57,1	2	28,6	1	14,3	0	0		
Tobacco consumption										
No	68	20,3	128	38,2	128	38,2	11	3,3	31,38	0,000
Yes	12	26,7	15	33,3	8	17,8	10	22,2		
Alcohol consumption										
No	40	16,8	109	38,9	114	40,7	10	3,6	24,24	0,000
Yes	33	33,0	34	34,0	22	22,0	11	11,0		

Fuente: CDP-9; MRS-11; n=380

Significant associations were identified between the somatic quality of life dimension and various sociodemographic characteristics. In terms of marital status, single women had a higher proportion of severe

symptoms (45,6 %) compared to married women (32,1 %), among whom moderate symptoms predominated (41,5 %) (x^2 = 16,10, p = 0,001). Regarding occupation, those without employment reported severe (49,4 %) and very severe (11,1 %) discomfort more frequently, while moderate pain (44,0 %) was more prevalent among working women (x^2 = 51,04; p < 0,000). Educational level showed a marked relationship: women with primary education had the highest concentration of severe symptoms (63,2 %), while mild and moderate levels predominated among those with high school and bachelor's degrees; postgraduate education showed a favorable pattern, with 57,1 % reporting mild symptoms (x^2=82,63; p=0,000). Finally, consumption habits also had an influence: among smokers, 22,2 % reported very severe symptoms compared to 3,3 % among non-smokers (x^2=31,38; p=0,000); and among alcohol consumers, 33,0 % reported mild discomfort and 11,0 % reported very severe symptoms, while among non-consumers, the severe level predominated (40,7 %) (x^2=24,24; p=0,000); history of comorbidity, hysterectomy, and menstruation showed no significant differences (p>0,05), (table 1).

About the psychological quality of life subscale, the results show that marital status was significantly related to the psychological dimension (x^2=10,10; p=0,05). Among single women, the presence of severe symptoms was notable (61,2 %), while among married women, although the severe level also predominated (47,7 %), there was greater dispersion toward the moderate (35,4 %) and mild (17,0 %) levels. In terms of occupation, the difference was even more pronounced (x^2=33,66; p=0,000). Those without paid employment concentrated the severe symptoms (67,3 %), while among working women, the discomfort was distributed at moderate (38,1 %), severe (39,4 %), and, in a significant percentage, mild (22,5 %) levels.

Table 2. Psychological quality of life according to sociodemographic characteristics

Marital status	Mild		Moderate		Severe		Very severe		χ^2	p-value
	f	%	f	%	f	%	f	%		
Single	12	11,7	28	27,2	63	61,2	12	11,7	10,10	0,05
Married	47	17,0	98	35,4	132	47,7	47	17,0		
Occupation										
No	10	6,2	43	26,5	109	67,3	10	6,2	33,66	0,000
Yes	49	22,5	83	38,1	86	39,4	49	22,5		
Educational level										
None	1	100	0	0	0	0	1	100	46,30	0,000
Primary	1	5,3	3	15,8	15	78,9	1	5,3		
Secondary	5	6,5	20	26	52	67,5	5	6,5		
High school	15	9,6	62	39,7	79	50,6	15	9,6		
Bachelor's degree	34	28,3	39	32,5	47	39,2	34	28,3		
Postgraduate	3	42,9	2	28,6	2	28,6	3	42,9		
Alcohol consumption										
No	37	13,2	90	32,1	153	54,6	37	13,2	6,28	0,043
Yes	22	22,0	36	36,0	42	42,0	22	22,0		

Source: CDP-9; MRS-11; n=380

Educational level showed a strong association (x^2=46,30; p=0,000). Women with low levels of education, especially primary education (78,9 % with severe symptoms), reported greater psychological distress. In contrast, those who had completed undergraduate and postgraduate degrees had a more favorable distribution, with high percentages in the mild and moderate levels, and even in doctoral degrees, a considerable proportion of mild discomfort was observed (42,9 %). Finally, alcohol consumption also showed differences (x^2=6,28; p=0,043). Among non-drinkers, the severe level predominated (54,6 %), while among drinkers, a more balanced distribution was observed between the moderate (36,0 %) and severe (42,0 %) levels, although with a striking increase in the very severe discomfort group (22,0 %); the rest of the sociodemographic characteristics showed no statistical association (p>0,05), (table 2).

In the urogenital dimension, significant differences were observed according to occupation, educational level, and alcohol consumption. Employed women reported severe symptoms more frequently (43,8 %), while mild and moderate levels predominated among non-working women (x^2=52,03; p=0,000). In relation to education, severe symptoms were more common among primary school graduates (57,9 %), while mild symptoms were more common among university graduates and postgraduates (47,5 % and 71,4 %, respectively) (x^2=55,88; p=0,000). Finally, alcohol consumption showed a contrasting effect: half of the consumers presented mild discomfort, although 21,0 % also presented severe symptoms, compared to non-consumers, among whom the moderate level predominated (47,1 %) (x^2=24,45; p=0,000), the complement of sociodemographic variables showed no significant differences (p>0,05), (table 3).

Table 3. Urogenital quality of life according to sociodemographic characteristics

Occupation	Mild		Moderate		Severe		Very severe		χ^2	p-value
	f	%	f	%	f	%	f	%		
Yes	24	14,8	67	41,4	71	43,8	24	14,8	52,03	0,0<00
No	92	42,2	94	43,1	32	14,7	92	42,2		
Educational level										
None	1	100	0	0	0	0	1	100	55,88	0,000
Primary	0	0	8	42,1	11	57,9	0	0		
Secondary	15	19,5	30	39,0	32	41,6	15	19,5		
High school	38	24,4	71	45,5	47	30,1	38	24,4		
Bachelor's degree	57	47,5	50	41,7	13	10,8	57	47,5		
Postgraduate	5	71,4	2	28,6	0	0	5	71,4		
Alcohol consumption										
No	66	23,6	132	47,1	82	29,3	66	23,6	24,45	0,000
Yes	50	50,0	29	29,0	21	21,0	50	50,0		

Source: CDP-9; MRS-11; n=380

Table 4. Logistic regression model according to dimensions of somatic, psychological, and urogenital quality of life, and sociodemographic characteristics

Dimension	Variable	OR	95 % CI	p	AUC
Somatic	Marital status (single vs. married)	1,80	1,03-3,15	0,04	0,788
	Occupation (Not working vs. Yes)	3,27	1,85-5,79	0	
	Education (≤ Secondary vs. ≥ High School)	0,75	0,39-1,43	0,38	
	Comorbidities (Yes vs. No)	5,71	3,34-9,74	0,00	
	Hysterectomy (Yes vs. No)	1,42	0,58-3,45	0,44	
	Menstruation in the last 12 months (Yes vs. No)	0,80	0,47-1,35	0,40	
	Tobacco (Yes vs. No)	1,38	0,62-3,05	0,43	
	Alcohol (Yes vs. No)	0,59	0,33-1,06	0,08	
Psychological	Marital status (Single vs. Married)	1,56	0,90-2,70	0,11	0,759
	Occupation (Not working vs. Yes)	1,70	0,99-2,93	0,06	
	Education (≤ Secondary vs. ≥ High School)	1,33	0,71-2,49	0,37	
	Comorbidities (Yes vs. No)	4,14	2,50-6,88	0,00	
	Hysterectomy (Yes vs. No)	1,42	0,59-3,40	0,44	
	Menstruation in the last 12 months (Yes vs. No)	0,51	0,31-0,85	0,01	
	Tobacco (Yes vs. No)	0,97	0,44-2,11	0,93	
	Alcohol (Yes vs. No)	0,70	0,39-1,24	0,22	
Urogenital	Marital status (Single vs. Married)	1,13	0,61-2,11	0,69	0,801
	Occupation (Not working vs. Yes)	2,52	1,37-4,62	0	
	Education (≤ Secondary vs. ≥ High School)	1,29	0,67-2,47	0,44	
	Comorbidities (Yes vs. No)	6,25	2,82-13,89	0,00	
	Hysterectomy (Yes vs. No)	1,48	0,59-3,70	0,40	
	Menstruation in the last 12 months (Yes vs. No)	0,25	0,12-0,52	0	
	Tobacco (Yes vs. No)	0,66	0,25-1,71	0,39	
	Alcohol (Yes vs. No)	0,92	0,45-1,88	0,82	

Source: CDP-9; MRS-11; n=380

The multivariate analysis revealed differential factors in each dimension of quality of life during the climacteric. In the somatic sphere, it was found that being single increased the probability of severe symptoms by 80 % (OR=1,80; 95 % CI: 1,03–3,15; p=0,04), while unemployment practically tripled the risk (OR=3,27; 95 % CI: 1,85–5,79; p<0,001). Comorbidities were the most robust predictor, with an OR=5,71 (95 % CI: 3,34-9,74; p<0,001). In contrast, variables such as education, hysterectomy, tobacco use, or alcohol consumption did not reach statistical significance. The model had an AUC of 0,788, with a Nagelkerke R^2 of 0,26 and a non-significant Hosmer–Lemeshow test (p=0,41), supporting adequate adjustment. In the psychological dimension, unemployment showed a trend toward significance (OR=1,70; 95 % CI: 0,99–2,93; p=0,06), although it did not reach the conventional threshold. Comorbidities were confirmed as a strong predictor (OR=4,14; 95 % CI: 2,50–6,88; p<0,001), while having had a period in the last 12 months acted as a protective factor (OR=0,51; 95 % CI: 0,31–0,85; p=0,01). The AUC of this model was 0,759, with an R^2 of 0,23 and an adequate Hosmer–Lemeshow

(p=0,36). Regarding the urogenital sphere, work inactivity doubled the risk of symptoms (OR = 2,52; 95 % CI: 1,37–4,62; p < 0,001), and the presence of comorbidities increased it more than sixfold (OR = 6,25; 95 % CI: 2,82–13,89; p < 0,001). Interestingly, menstruation in the last 12 months was significantly associated with a reduced probability of involvement (OR=0,25; 95 % CI: 0,12–0,52; p < 0,001). The model achieved the best performance, with an AUC of 0,801, an R^2 of 0,28, and a good fit, as indicated by the Hosmer–Lemeshow test (p = 0,47). Given the number of comparisons made, the p-values were adjusted using the Bonferroni correction, which minimized the risk of false positives and strengthened the robustness of the associations presented (table 4).

DISCUSSION

The results of this study are largely in line with the international literature that emphasizes the role of social and clinical determinants in the experience of menopause. As reported by Palacios et al., the intensity of symptoms is not uniformly distributed but is modulated by sociodemographic factors and the geographical context in which women live.[2] In our case, the presence of comorbidities was confirmed as a significant predictor, which had already been documented in research in Chile and Spain, where multimorbidity was identified as a key determinant of both physical and psychological discomfort.[6,11] This convergence is logical when considering that chronic diseases tend to amplify the perception of changes associated with menopause, generating a cumulative effect that directly impacts quality of life.

With regard to marital status, the findings show a more complex picture. While in our analysis, being single was associated with greater somatic symptoms, studies such as that by Cruz Martínez et al.[10] did not find such a relationship in Mexican women. This apparent contradiction can be understood if we recognize that social support networks do not always depend on marital status: in some contexts, being married does not guarantee emotional or material support, while in others, the absence of a partner can translate into greater vulnerability. Rather than a discrepancy, what emerges is the need to interpret marital status in light of effective social ties and not just formal status.

One finding that deserves attention is the role of consumption habits. In this study, alcohol showed a marginal protective effect, while reports from the Andean region have described an adverse impact on psychological and urogenital quality of life.[8] This difference can be explained by diversity in cultural patterns of consumption, the amount and frequency of intake, or even the way women interpret these practices in relation to hormonal changes. What is relevant here is not the apparent contradiction but the evidence that daily habits do not operate universally but are mediated by cultural and social context.

Regarding the psychological dimension, our results are consistent with those reported by Urdaneta et al.[6], who point out that a lower level of education increases emotional distress. The explanation lies in the fact that schooling not only provides knowledge but also broadens access to coping resources and health services, which promotes a less negative perception of symptoms. Thus, the link between education and mental health during menopause reflects the close relationship between cultural capital and resilience in the face of this life transition.

Finally, the findings are consistent with the perspective of the WHO and PAHO, which recognize menopause as a public health challenge involving both biological and social factors.[1,3,7] However, the added value of this work lies in the fact that, beyond corroborating what has already been described about the role of estrogen or hormonal interventions,[16,20,21,22,23,24,25] it provides evidence that quality of life during menopause can be explained to a large extent by the interaction between employment, comorbidities, and social support networks, even in the absence of pharmacological treatments. This opens up a space for reflection on the need for public policies that transcend the strictly clinical and take a comprehensive view of women's social and working conditions.

CONCLUSION

The study showed that quality of life during the climacteric cannot be reduced to hormonal loss, but is influenced by social, clinical, and lifestyle factors. Unemployment and the presence of comorbidities were confirmed as predictors of greater severity, while menstruation in the last year acted as a protective factor in the psychological and urogenital dimensions. These findings reaffirm the need to understand this stage from a comprehensive approach that considers, along with biology, the environment and living conditions of each woman.

Limitations include the cross-sectional design, which prevents the establishment of causality, the concentration of the sample in a single institution, and the use of self-reported questionnaires, which may have introduced recall or interpretation biases. In addition, subjective aspects such as support networks or coping strategies, which surely influence the experience of climacteric, were not addressed.

For future research, it is suggested to opt for longitudinal designs that allow the evolution of symptoms to be followed, to expand the sample to different regions of the country to capture sociocultural diversity, and to use mixed methodologies that integrate quantitative and qualitative approaches. It is also recommended to explore non-pharmacological interventions such as physical activity, nutritional education, and psychosocial

support as complementary strategies that respond more closely and sensitively to the real needs of women at this stage.

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FUNDING

The authors did not receive funding for the development of this research.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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