

## Research Article

# Association between Family Functionality and Climacteric Symptoms in Postmenopausal Women

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## Abstract

**Background:** The climacteric corresponds to the period of life of the woman in which the progressive decline of the ovarian function occurs; this produces the appearance of symptoms that can significantly affect the quality of life. The family environment has a very important influence, since menopause coincides with critical situations within the family, couple, children and parents; the symptoms of climacteric and its association with family functionality has not been clearly established.

**Aim:** The purpose of this study is to determine the association between family functionality and intensity of symptoms during the climacteric in postmenopausal women.

**Design and Setting:** Comparative cross-sectional study.

**Methods:** In 120 patients in the Family Medicine Unit #27, Tijuana, Baja California, the family functionality and the climacteric symptoms were measured to make an association between them. The following variables were collected: age, religion, marital status, schooling, occupation, socioeconomic level, number of children, family typology, family life cycle, family functionality and intensity of climacteric syndrome. For statistical analysis, association was established with chi-squared test with 95% interval confidence ( $p < 0.05$ ).

**Results:** It was found that 50% had functional family, 42.50% moderately functional family and 7.50% dysfunctional family. Of the total of women, 19.17% had a mild climacteric syndrome, 30.83% had a moderate climacteric syndrome and 9.17% had a severe climacteric syndrome. Family functionality and climacteric syndrome were associated, finding a statistically significant association ( $p = 0.02$ ).

**Conclusion:** By relating the symptoms of the climacteric syndrome with family functionality, it was found that women who had functional families had a lower degree of symptomatology.

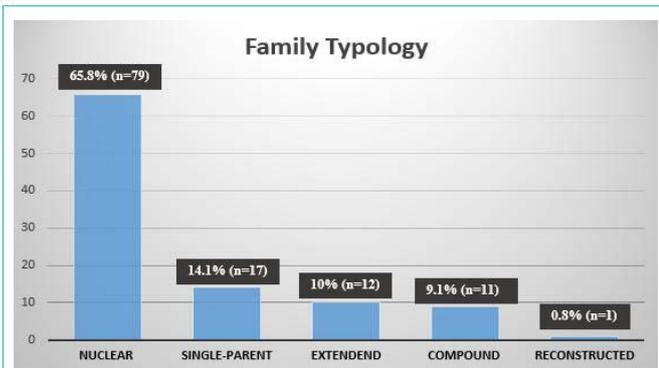
**Keywords:** Climacteric syndrome; Perimenopause; Menopause; Family functionality

## Introduction

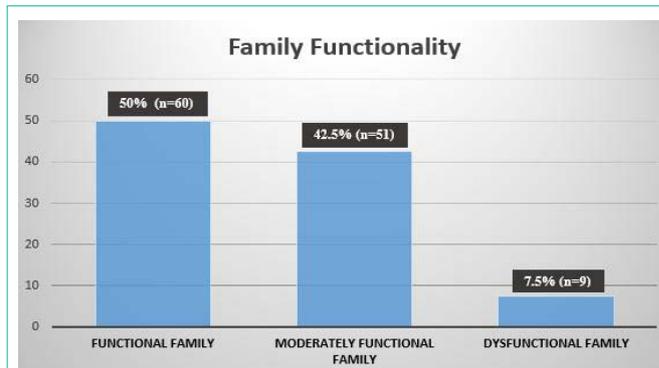
The climacteric corresponds to the period of life of the woman in which the progressive decline of the ovarian function occurs, this produces the appearance of symptoms that can significantly affect the quality of life [1]. Perimenopause is defined as the period of time from the beginning of the menstrual irregularities that precede the menopause, to the end of the first year after the last menstruation. Postmenopause is defined as the period from the menopause until death occurs [2]. The last menstruation of the woman is called natural menopause and it is diagnosed after twelve months of amenorrhea. Premature menopause is defined as menopause that occurs at an age less than two standard deviations from the estimated average for a reference population, as a general criterion, the age of 40 years is accepted as the cut-off point. Late menopause is defined as that which occurs at an age greater than two standard deviations from the estimated mean for a reference population [2], age greater than 55 years is accepted as the cut-off point. The climacteric syndrome is a

set of signs and symptoms, which occur during perimenopause and postmenopause, including vasomotor symptoms, sleep disturbances, psychological alterations and urogenital atrophy [3].

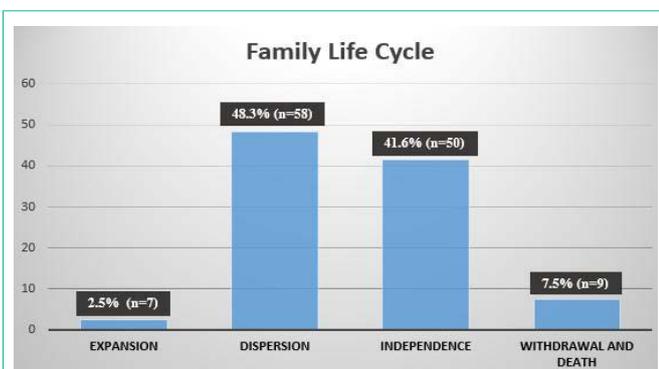
The most frequent clinical manifestations of the climacteric syndrome are: menstrual disorders, vasomotor symptoms (hot flashes, sweating), genitourinary manifestations, psychological disorders with changes in mood, anxiety, depression and alteration of the sleep pattern [4]. It has been shown that the vasomotor symptoms are activated by various external or internal stimulus such as anxiety, ambient temperatures, caffeine, alcohol and physical contact. These symptoms are the most intense during this stage and the main reason for medical attention among patients, however, the treatment of the climacteric syndrome should not be focused on the exclusive management of vasomotor disorders because the main treatment is the improvement of the quality of life for women [5]. In the last decades it has been improved in the development of multiple treatment options, one of them is hormone replacement therapy,



Graphic 1: Descriptive analysis of the distribution by family typology.



Graphic 3: Descriptive analysis of the distribution by family functionality.



Graphic 2: Descriptive analysis of the distribution by family life cycle.

which restores the level of estrogen in the body in order to recover the lost endocrine balance and decrease or eliminate the climacteric manifestations and preventing osteoporosis, ischemic heart disease and Alzheimer's disease. Estrogens are administered continuously or cyclically. Cyclic therapy is characterized by the existence of free intervals of treatment, although currently estrogen is usually given continuously, since its intermittent administration can cause vasomotor symptoms during the rest days [6].

The increase in life expectancy and the presence of extended homes has allowed the coexistence of daughters, mothers and grandmothers at the same time. The most frequently observed stage of the family life cycle is the dismemberment stage. This family situation and the emotional reaction provokes the "empty nest syndrome" which is one of the vital events of this stage. This happens when the woman feels that the home is alone and that it has lost importance in the family nucleus. Due to this situation some authors mention that there is an association between the intensity of climacteric symptoms and the family or work environment [7]. The family environment has a very important influence, since menopause coincides with critical situations within the family, with the couple, children and parents [8]. There are few studies that have been conducted to relate these aspects, a situation that must be reversed because the primary care model includes family health [9].

To evaluate the family functionality, the proof of perception of family functioning (FF-SIL) test is used, which evaluates seven processes involved in intrafamilial relationships: cohesion, roles, harmony, communication, affectivity, permeability and adaptability.

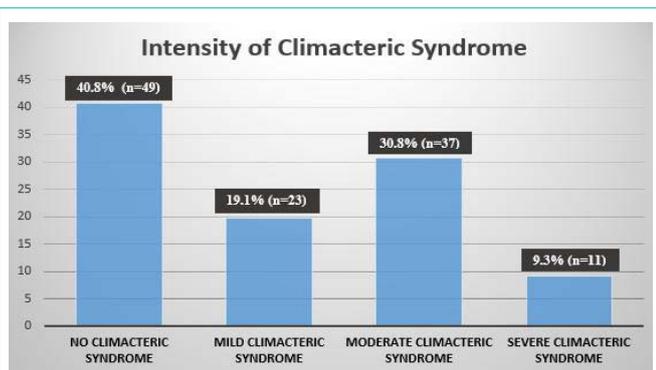
It consists of 14 items, with a Likert scale with 5 options as response alternatives [10]. On the other hand, in the evaluation of the clinical consequences that climacteric and menopause produce in women, there is the Blatt-Kupperman index developed in 1953, this test is used to evaluate the intensity of menopausal and climacteric symptoms that includes 11 categories: vasomotor, paresthesia, insomnia, nervousness, melancholy, vertigo, fatigue, arthralgias, myalgias, headache and palpitations, each category is evaluated with a scale of 0-4 (0, no symptom; 4, severe), the total score evaluates the severity of the symptoms [11]. Based on the above, the main objective of this research is to determine the association between family functionality and intensity of symptoms during the climacteric in postmenopausal women in Tijuana, Mexico.

## Materials and Methods

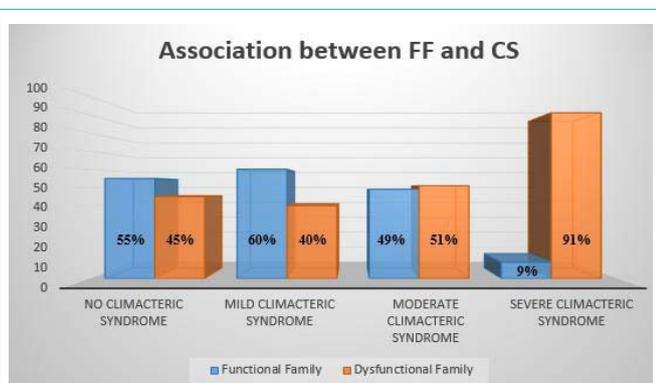
A comparative cross-sectional study was carried out in the Family Medicine Unit #27 (FMU-27), of the Instituto Mexicano del Seguro Social (IMSS), located in Tijuana, Baja California, Mexico, in women that met the following inclusion criteria: age between 40-60 years, presence of any of the symptoms of the climacteric syndrome, such as: menstrual disorders, hot flashes, palpitations, changes in mood, sleep disturbances, headache and that accepted and signed the informed consent; women with psychiatric illness or in treatment with some hormonal therapy were not included and eliminated those who did not complete the survey.

The following data were obtained directly from the women or medical records: age, occupation, religion, marital status, schooling, socioeconomic level, number of children, family typology, family functionality, family life cycle and intensity of climacteric symptoms. The procedure for the data collection was as follows: age was calculated in years according to the year of birth, marital status was expressed by each patient, occupation, schooling, religion and number of children were determined by asking directly to patients, socioeconomic level was determined by AMAI test (A/B, C+, C, C-, D+, D and E), family life cycle was based on Geyman's life cycle, developed by this same author in 1980 [12], family typology was determined according to composition (nuclear, nuclear without children, single-parent, extensive, composed and reconstructed), family functionality was evaluated with the FF-SIL test and the intensity of climacteric symptoms was determined with the Blatt-Kupperman Index.

The recollected data was integrated into data collection sheets and analyzed using the SPSS program version 20 in Spanish, where



**Graphic 4:** Descriptive analysis of the distribution by intensity of climacteric syndrome.



**Graphic 5:** Association between family functionality (FF) and intensity of climacteric syndrome (CS).

we applied descriptive statistics; for qualitative variables, frequencies and percentages were used and for quantitative variables, mean and standard deviation were used. For the bivariate analysis, Ji-Square test was used to determinate statistically significant differences between the groups. The Kolmogorov-Smirnoff test was used to establish the normality of the data. It was considered a  $p < 0.05$  as statistically significant, with a 95% confidence interval. The Protocol was authorized by the Local Committee of Research and Ethics in Health Research from the Family Medicine Unit #27, where this study took place.

## Results

We analyzed a sample of 120 patients, the age distribution was from 40 to 60 years, with a mean of 48.9 years. In schooling we find the following distribution: complete secondary (34.17%), incomplete secondary (15.8%), complete primary (15.8%), incomplete primary (15%), bachelor's degree (13.3%), high school (5%) and without schooling (0.8%). The most frequent marital status was married (60%), free union (20%), single (9.1%), widowed (8.3%) and divorced (2.5%). In occupation it was found that 50.8% of women were housewives and 49.2% were employed. In religion, 75 (62.50%) women professed the catholic religion, 26 (21.67%) the Christian, 3 (2.50%) Jehovah's Witness and 16 (13.33%) patients did not profess any religion.

In determining the socioeconomic level, the upper middle class (C+) was found with 4.17%, typical middle class (C) 20%, lower middle class (D+) 55.83%, lower class with (D) 17.50% and the

**Table 1:** Association between family functionality and intensity of climacteric syndrome.

	Functional Family	Dysfunctional Family	P	
Climacteric Syndrome	0-14 points No climacteric Syndrome	27 (55%)	22 (45%)	0.02
	15-20 points Mild climacteric Syndrome	14 (60%)	9 (40%)	
	21-35 points moderate climacteric Syndrome	18 (49%)	19 (51%)	
	≥ 36 points Severe climacteric Syndrome	1 (9%)	10 (91%)	

#: Percentage, n: Frequency, p: Ji-Square.

lowest class (E) 2.50%. Regarding the family typology based on its composition (Graphic 1), it was found that 79 (65.83%) of the 120 patients belonged to a nuclear family, 17 (14.17%) to a single-parent family, 12 (10%) to an extended family, 11 (9.17%) to a compound family and 1 (0.83%) to a reconstructed family. In the family life cycle (Graphic 2) it was found that 48.3% (n=58) were in the dispersion stage, 41.67% (n=50) the independence stage, 7.50% (n=9) in the withdrawal and death stage and 2.50% (n=7) in expansion stage. Within the family functionality (Graphic 3), it was found that 50% had a functional family, 42.50% moderately functional family and 7.50% dysfunctional family.

Of the total of women surveyed, 10 (8.3%) had 1 child, 31 (25.8%) 2 children, 43 (35.8%) 3 children, 17 (14.2) 4 children, 14 (11.7%) 5 children, 4 (3.3%) more than 5 children and 1 (0.8%) did not have any children. When evaluating the symptoms of climacteric syndrome (Graphic 4) it was found that 40.83% did not have a climacteric syndrome, 19.17% had a mild climacteric syndrome, 30.83% had a moderate climacteric syndrome and 9.17% had a severe climacteric syndrome according to the Blatt-Kupperman Index (Graphic 5). When carrying out the bivariate analysis and associating family functionality with the intensity of the climacteric syndrome (Table 1), 49 patients were found without the climacteric syndrome, of which 27 had functional families and 22 dysfunctional families; in women who had a mild climacteric syndrome (n=23), 14 had functional families and 9 dysfunctional families; women with moderate climacteric syndrome (n=37), 18 had functional families and 19 dysfunctional families and in the severe climacteric syndrome (n=11), 1 had a functional family and 10 dysfunctional family, this association was statistically significant ( $p=0.02$ ).

## Discussion and Conclusion

The climacteric is an important stage during the life of any woman and represents a stage within the biological cycle. It has been found in the literature that the climacteric is linked to emotional and family factors, so this study was developed to determine the association between family functionality and climacteric syndrome. By relating the intensity of the symptoms of the climacteric syndrome with family functionality, it was found that women who had functional families had a lower degree of symptomatology. The relationship between family functionality and the severity of climacteric symptomatology was significant, so when altering the family functionality there could be changes in the climacteric stage, causing mainly increase in symptomatology. In this study was concluded that there is a need to

carry out a comprehensive study on women during the climacteric, since most of the medical staff consider this symptomatology as a physiological response of the perimenopause and menopause stage, which causes a decrease in the quality of life due to the symptoms. This type of studies allows us to focus on improving the quality of care for women with climacteric and make a more adequate assessment of the consequences of this health problem. In addition to the above, this study allows to open lines of research focused on alleviating or minimizing the symptoms of the climacteric syndrome.

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