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The influence of climate symptoms on women's health

ABSTRACT | This study aimed to describe the influence of climacteric symptoms on the quality of life of women in this phase of the reproductive cycle. This is a descriptive, quantitative, cross-sectional, and epidemiological research that started after a favorable opinion from the Ethics Committee by numbering 1,655,600. Participated in the research women aged between 40 and 64-years old users of an ESF in the city of Montes Claros-MG who consented to participate in the research through the Free and Informed Consent Term. The collection instrument used was the sociodemographic questionnaire, QSM and the Kupperman and Blatt Index with descriptive and comparative analysis of the data. In the results it can be seen that the majority of women presented symptoms between moderate and severe, totaling 60.9% according to the Kupperman and Blatt Index, and that the majority of the participants, 52.9%, had average responses in the QSM above the general average of the studied population, which indicates that the symptoms experienced in this phase of life lead to changes in their quality of life.
Keywords: Climacteric; Women's Health; Menopause.

RESUMEN | Este estudio tuvo como objetivo describir la influencia de los síntomas climatéricos en la calidad de vida de las mujeres en esta fase del ciclo reproductivo. Esta es una investigación descriptiva, cuantitativa, transversal y epidemiológica que comenzó después de una opinión favorable del Comité de Ética con un número de 1,655,600. Participó en la investigación mujeres de entre 40 y 64 años usuarias de un FSE en la ciudad de Montes Claros-MG que consintieron en participar en la investigación a través del Término de consentimiento libre e informado. El instrumento de recolección utilizado fue el cuestionario sociodemográfico, QSM y el índice de Kupperman y Blatt con análisis descriptivo y comparativo de los datos. En los resultados se puede ver que la mayoría de las mujeres presentaron síntomas entre moderados y severos, totalizando 60.9% de acuerdo con el Índice de Kupperman y Blatt, y que la mayoría de los participantes, 52.9%, tuvieron respuestas promedio en el QSM por encima del promedio general de la población estudiada, lo que indica que los síntomas experimentados en esta fase de la vida conducen a cambios en su calidad de vida.
Descriptores: Climatérico; La Salud de la Mujer; Menopausia.

RESUMO | Este estudo objetivou descrever a influência dos sintomas climatéricos na qualidade de vida de mulheres nessa fase do ciclo reprodutivo. Trata-se de uma pesquisa descritiva, quantitativa, transversal e epidemiológica que iniciou após parecer favorável do Comitê de ética pela numeração 1.655.600. Participaram da pesquisa mulheres com idade entre 40 e 64 anos de idade usuárias de uma ESF da cidade de Montes Claros-MG que consentiram participar da pesquisa através do Termo de Consentimentos Livre e Esclarecido. O instrumento de coleta utilizado foi o questionário sociodemográfico, QSM e o Índice de Kupperman e Blatt com análise descritiva e comparativa dos dados. Nos resultados pode-se observar que a maioria das mulheres apresentou sintomas entre moderados e acentuados, totalizando 60,9% de acordo o Índice de Kupperman e Blatt, e que a maioria das participantes, 52,9%, apresentaram médias de resposta no QSM acima da média geral da população estudada, o que aponta que os sintomas vivenciados nesta fase da vida levam à alterações na sua qualidade de vida.
Palavras-chaves: Climatério; Saúde da Mulher; Menopausa.

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INTRODUCTION

The life expectancy of the world population has grown considerably in recent years. In Brazil, this expectation in women is 72.5 years, with a significant increase in those who are 45 years old, allowing more women to experience the changes resulting from the climacteric. For these, obsolete health care has been offered, increasing the frequency of complaints during consultations in Primary Health Care and decreasing their quality of life[1,2].

The climacteric is characterized by the transition from the reproductive period to the senile phase of the woman,

marked by the last menstruation (menopause), that is, the final phase of the reproductive cycle. Thus, the climacteric begins at 35 years of age, but symptoms may appear at 40 years of age[3-5].

The climacteric has three phases: the pre-menopause which is characterized by the absence of menstruation (amenorrhea) for 3 months; perimenopause which is a clinical condition in which amenorrhea occurs for 3 to 11 months in duration, due to ovarian exhaustion that reduces estrogen and increases FSH and LH as a way of compensating for non-production of follicles by the ovaries. Then comes the postmenopausal period, in which the androgen hormones are not converted into estrogens due to the absence of follicles, causing the androgen to circulate through the blood causing changes in the skin, lipid metabolism and weight, which will increase in this period[3,5,6].

Therefore, in the climacteric there is a gradual decrease in the production of hormones by the ovaries, thus, women may present unpleasant signs and symptoms, called climacteric syndrome, in addition to pathologies such as osteoporosis and cardiovascular diseases[7].

The diagnosis is clinical and is based on the woman's age, menstrual irregularity, and climacteric symptoms. In this phase, about 60 to 80% of women have some symptom, the most common being vasomotor instability, menstrual disorders, psychological symptoms and genitourinary atrophy[1,4,7].

Other complaints are depression, hot flashes, night sweat, anxiety, forgetfulness, dyspareunia, vaginal dryness, insomnia, palpitations, joint pain, dizziness, headache, irritability, and difficulty concentrating. There are still changes related to bone metabolism, which can cause osteoporosis, due to greater bone resorption and lipid metabolism that can raise cholesterol and triglyceride levels, increasing LDL rates and decreasing HDL, favoring the onset of cardiovascular diseases that are one of the biggest causes of mortality in women[3,8,9].

The verification of these symptoms can be done using the Kupperman and Blatt index, which evaluates the complaints, measuring them according to their intensity, establishing a weight[2].

According to a study[1], Healthy habits can involve a better quality of life, relieving the symptoms of menopause through changes in diet, physical exercise, use of medication, leisure, in addition to psychological support, increasing self-esteem and well-being.

For some women, this phase is considered a time to make dreams come true, while for others it symbolizes the mourning of youth and productivity. It must be considered that all changes in this stage are related to their life history and, therefore, must be evaluated by their physiological, economic, social, and cultural changes. However, it is evident the need for an intervention of trained professionals to help improve the quality of life, through comprehensive care that values the individuality of each woman[5].

In the meantime, it is necessary to take into account the woman's feelings and perceptions, establishing pharmacological or non-climatic therapeutic measures aimed at relieving climacteric symptoms or preventing disabilities, thus, intervening promoting a higher quality of life, involving the therapeutic approach much more than the symptoms, but also the physical and emotional conditions of these women[10].

In this context, the objective of the work is to describe the influence of climacteric symptoms on the quality of life of women in this phase of the reproductive cycle.

METHODOLOGY

A population-based, epidemiological, quantitative, descriptive cross-sectional study was carried out, ranging from 40 to 64 years of age, attended in a Family Health Strategy (FHS), in the city of Montes Claros, in the State of Minas Gerais, Brazil. Data collection was carried out from August to October 2016.

The population of women registered in the FHS was 324 women. The sampling was based on a 95% confidence level and a sampling error of 0.05% resulting in a sample of 177 women. However, this article provides data for 104 women. Such loss concerns women who did not want to participate or who gave up and withdrew their consent during the research, also those who were not found after three attempts and there was no time and possibility of substitution within the aforementioned population.

Inclusion criteria were considered those that were registered in the FHS with an age group considered to be middle age (40 to 64 years) by the World Health Organization (WHO). Those who: explicitly refused to answer the questionnaires, those who were using hormone replacement therapy were excluded, since this treatment leads to a decrease in climacteric symptoms, those who were not found after three attempts and those who were unable to answer the questions. questionnaires for physical, mental, or cognitive disabilities.

For women over 60 years of age, the cognitive ability to answer the questionnaire was measured by the Mini-Examination of Mental State - MEEM application(11). The cut points adopted by Brucki and collaborators were used(12) to assess cognitive function, namely: 20 points for illiterates, 25 points for elderly women with 1 to 4 years of study, 26.5 points for elderly women with 5 to 8 years of study, 28 points for those with 9 to 11 years of age study and 29 points for elderly women with more than 11 years of study. All those who did not reach these values within their respective schooling were eliminated from the sample.

The women were chosen randomly by means of a drawing of the individual registration forms, using the registration number of the family of these women. After clarifying the purpose of the research and procedures, the women who agreed to participate signed

the Free and Informed Consent Form (ICF). Initially, the sociodemographic questionnaire was applied, containing questions such as: age, education, marital status, age at menarche, age at menopause, among others.

Then, the QSM (Women's Health Questionnaire) was answered with 36 closed-ended questions based on the quality of life of women who experience or experienced the climacteric. It was created in 1986 in England, being well accepted internationally and validated in Brazil by authors(3). For this work, the translation made by Dias et al(13). The QSM allows to point out the common symptoms of climacteric, in which the highest score refers to the greatest suffering of women and consequently lower quality of life[3,13].

QMS offers four alternatives as a possible answer. Their questions are divided into seven groups, arranged at random, which assess: depression (seven questions) - 3; 5; 7; 8; 10; 12; 25; somatic symptoms (seven questions) - 14; 15; 16; 18; 23; 30; 35; memory/concentration (three questions) - 20; 33; 36; vasomotor symptoms (two questions) - 19; 27; anxiety/fears (four questions) - 2; 4; 6; 9; sexual behavior (three questions) - 24; 31; 34; sleep problems (three questions) - 1; 11; 29; menstrual symptoms (four questions) - 17; 22; 26; 28; and attractiveness (three questions) - 13; 21; 32.

Finally, the Kupperman and Blatt Index created by German doctors, Kupperman and Blatt, was applied, based on clinical observation of patients and being published in 1953, becoming a reference in the assessment of climacteric symptoms. This index assesses the symptoms, measuring them according to the intensity reported by the women who are in the climacteric phase, ranging from mild, when the result is less than or equal to 19, Moderate when it is 20 to 35 and severe or severe if it is greater than 35, that way, it is possible to assess which symptoms are more intense in the climacteric[3].

Data analysis was performed using SPSS (Statistical Package for the Social Sciences) version 19.0 for Windows® and subsequently underwent specific statistical treatments, with a descriptive analysis with evaluation and comparison of means and dispersion measures. - Standard deviation. Descriptive analysis allows the verification of relative and absolute frequencies, measures of central tendency and dispersion.

This research was approved by the Research Ethics Committee of the Educational Society of Brazil (SOEBRAS) under the opinion of number 1,655,600.

RESULTS

The sociodemographic characterization of the women participating in the study was evidenced by the application of a questionnaire followed by an analysis and discussion of the data obtained.

For the analysis of the sociodemographic profile with respect to the numerical variables, the average, maximum, minimum value and dispersion measures were calculated. Table 1 shows these data, already treated, and it is possible to observe that the average age of the participants was 52.2 years with a standard deviation of 5.73 more or less. The average age of menarche and menopause was 13.6 years and 48.0 years respectively. The sample had borderline maximum and minimum values also known as outlines, for both menarche and menopause. For the first, the average age in Brazil varies between 13 to 14 years of age, while for the second the average varies between 48 and 52 years of age[14].

The education variable is important for assessing quality of life, since higher education presupposes greater knowle-

Table 1. Distribution of numerical data according to maximum, minimum, average and dispersion measurements. Montes Claros, MG, Brazil, 2016

Variável	Valor mínimo	Valor máximo	Média	Desvio Padrão
Idade em anos	45	64	52,2	5,73
Menarca em anos	10	18	13,6	1,57
Menopausa em anos	37	59	48,0	3,75

Table 2. Sociodemographic profile of middle-aged women (40 to 64 years old) in an ESF in Montes Claros according to absolute and relative frequencies. Montes Claros, MG, Brazil, 2016

Variável	N	%
Estado civil		
Vive sem companheiro	39	37,5
Vive com companheiro	65	62,5
Escolaridade		
Ensino fundamental	42	40,4
Ensino médio	52	50,0
Superior	10	9,6
Filhos		
Sem filhos	8	11,5
Com filhos	92	88,5
Tabagista		

Sim	9	8,7
Não	90	86,5
Bebida alcoólica		
Nunca	45	43,3
Socialmente	57	54,8
Etilista	2	1,9
Doença crônica		
Não	76	73,1
Sim	28	26,9
Uso de medicamentos		
Não	78	75,0
Sim	26	25,0

Table 3. Distribution of responses from the QSM domains according to the Average and the dispersion measure (Standard Deviation). Montes Claros, MG, Brazil, 2016

Domínio	Média	Desvio padrão
Depressão	2,17	0,56
Somáticos	2,29	0,60
Memória/concentração	2,27	0,85
Vasomotores	2,27	0,94
Ansiedade/temores	2,34	0,74
Comportamento sexual	2,09	0,76
Problemas do sono	2,40	0,72
Sintomas menstruais	2,12	0,68
Atratividade	1,97	0,62
Média geral	2,22	0,43

Table 4. Distribution of responses according to the general average of the QSM in absolute and relative frequencies. Montes Claros, MG, Brazil, 2016

Variável	N	%
Abaixo da média geral de 2,22	49	47,1
Acima da média geral de 2,22	55	52,9

Table 5. Description of the absolute and relative values of the Kupperman and Blatt Index. Montes Claros, MG, Brazil, 2016

Variável	Frequência Absoluta	Frequência Relativa
Leve	41	39,4
Moderado	45	43,3
Grave	18	17,3

dge or access to women's knowledge about the changes arising from the climacteric. Ignorance on the subject can generate doubts and myths that affect the quality of life of these women[15]. In this study it was observed that 50% of women finished their studies in high school, 40.4% in elementary school and only 9.6% have higher education.

It is also observed that 67.5% live with a partner and 88.5% have children. The data show that 75% of women do not use medication and 73.1% do not have chronic diseases, as for alcoholic drinks 54% of women drink socially, 43.3% do not drink and 1.9% are alcoholics. Regarding smoking, 8.7% said they were smokers.

Next, Table 3 presents the average responses in the different domains of the QSM. To calculate these averages, some questions had to have the value of their responses reversed, namely: 7, 10, 21, 25, 31 and 32. In the questionnaire, these questions present the order of the answer in the sense that the higher the score better the woman's life situation in that item, while all other questions suggest the opposite. For this reason, the calculation of these scores was changed from 1 to 4; 2 to 3; 3 for 2 and 4 for 1.

In the table above, it is interesting to note that of the nine domains, five (55.5%) are above the general average of the QSM which is 2.22. It is still necessary to point out that the dispersion values do not differ from the average, which demonstrates the homogeneity of the sample, which is healthy to show that the sample of this study is representative of the population, crediting the data of this work.

The sleep problems modality was the one with the highest average in the QSM, this disorder is frequent in the climacteric and is related to depression, anxiety, irritability and mainly to vasomotor symptoms - hot flushes[16].

Table 4, complementary to the assessment in Table 3, shows that the majority of the QSM responses (52.9%) are above the general average calculated for this questionnaire [2.22].

Table 5 points to the values of the Kupperman and Blatt Index scores calculated for women according to the negative influence of climacteric symptoms in their lives. Among the participants in this

study, 43.3%, the majority, pointed out that symptoms moderately influence their lives. These data corroborate with the studies[17] in which climacteric symptoms were mild in 28%, moderate in 42.3% and intense in 30.7% of cases.

In Table 6, the correlation analysis between the Kupperman and Blatt Index and the sociodemographic profile made it possible to verify that, among the women whose symptoms had severe weight, the majority are under 51 years of age and still live with a partner (55.6 %), have children (83.3%), had menopause before the age of 48 (58.3%), menarche after the age of 14 (66.7%) and have low education (44.4%). According to Silva; Borges (2012) the fact that women have accumulations of roles such as responsibility for their children, wife present, domestic activities and concern about work, factors that are common to modern women, can lead to stress and tiredness, reflecting negatively on their lives.

When analyzing the data on the correlation between the sociodemographic profile and the relationship of women whose response average is above the general average of the QSM, we observe that for the same groups mentioned above, symptoms referred to as severe in the Kupperman and Blatt Index are more incident, the average is reported as higher than the overall average. This group of women is identified as the one most prone to deteriorating their quality of life in climacteric.

DISCUSSION

The results of this study show that most women who participated in it had an average response in the QSM above 2.22 (52.9%).

For authors[13], people with average values greater than 2 are considered possible cases of low quality of life. The same author corroborated by a study[17] states that the higher the mean value of the answers, the worse the quality of life of women in climacteric. Among the nine domains of the QSM, five were above the general average: somatic symptoms [2.29], changes in memory and concentration [2.27], vasomotor symptoms [2.27], anxiety and tremors [2.34]) and sleep problems [2.40].

Somatic symptoms are pain in the back, arms and legs, excessive tiredness, headache, tingling, dizziness, polaciuria, nausea and vomiting. Memory and concentration are related to the decrease in memory performance with difficulty in concentrating and feeling clumsy.

Vasomotor symptoms, especially hot flushes also known as hot flashes ac-

Table 6. Relationship between sociodemographic variables and the Kupperman and Blatt Index and the general QSM average. Montes Claros, MG, Brazil, 2016

Variáveis	Índice menopausal Kupperman e Blatt			Média geral do QSM	
	Leve N (%)	Moderado N (%)	Grave N (%)	Abaixo da média N (%)	Acima da média N (%)
Estado civil					
Vive só	13 (31,7)	18 (40,0)	8 (44,4)	21 (42,9)	18 (32,7)
Vive com companheiro	28 (68,3)	27 (60,0)	10 (55,6)	28 (57,1)	37 (67,3)
Filhos					
Possui filhos	38 (92,7)	39 (95,1)	15 (83,3)	41 (87,2)	51 (96,2)
Não possui filhos	3 (7,3)	2 (4,9)	3 (16,7)	06 (12,8)	02 (3,8)
Menopausa					
Antes dos 48 anos	16 (55,2)	15 (50,0)	7 (58,3)	19 (55,9)	19 (51,4)
Depois dos 49 anos	13 (44,8)	15 (50,0)	5 (41,7)	15 (44,1)	18 (48,6)
Menarca					
Antes dos 13 anos	21 (51,2)	19 (42,2)	6 (33,3)	24 (49,0)	22 (40,0)
Depois dos 14 anos	20 (48,8)	26 (57,8)	12 (66,7)	25 (51,0)	33 (60,0)
Idade					
Menor de 51 anos	25 (61,0)	22 (48,9)	10 (55,6)	27 (55,1)	30 (54,5)
Maior de 52 anos	16 (39,0)	23 (51,1)	8 (44,4)	22 (44,9)	25 (45,5)
Escolaridade					
Ensino Fundamental	19 (46,3)	15 (33,3)	8 (44,4)	20 (40,8)	22 (40,0)
Ensino Médio	19 (46,3)	26 (57,8)	7 (38,9)	22 (44,9)	30 (54,5)
Ensino Superior	3 (7,3)	4(8,9)	3 (16,7)	07 (14,3)	03 (5,5)

companied by flushing and sweating, are among the most characteristic of menopause and those that most commonly have led women to seek health services[18,19].

Sleep problems reflect on the performance, behavior and well-being of women in the climacteric directly influencing their quality of life[20]. Thus, this modality is an important contributor to the classification of quality of life, since it encompasses other common symptoms in this phase, explaining the increase in the mean for anxiety, somatic symptoms (irritability) and vasomotor symptoms (hot flushes).

In the present study, climacteric symptoms were moderate in 43.3% and accentuated in 17.3% of cases, adding up to 60.9% of women assessed by the Kupperman and Blatt Index as living in poor quality of life. In view of the analysis of these data, it was also found that the variables: low education, living with partners and having children can influence the quality of life of the women participating in the study. Low schooling brings with it the lack of knowledge on the subject and consequently the appearance of doubts and myths that can generate anxiety and apprehension(15). As for the factors living with a partner and having children leads the woman to an overload of tasks that influence the appearance of symptoms such as stress and fatigue(21), these variables scored above the average in the QSM. It is interesting to note that these same variables are the highest percentage among women with marked symptoms in the Kupperman and Blatt index.

CONCLUSION

The results of this study mostly coincide with what is indicated in the literature as depressing quality of life in middle-aged women.

It is observed at all times in the various tables presented in this work that they are always the same variables that stand out when it is said in loss of quality of life of the participants - low education, having a husband and children and that may imply overwork. As for the influence of climacteric symptoms, hot flushes, somatic symptoms, sleep problems that lead to stress received prominence in the speech of the participants, which can produce people with multiple complaints often treated with disdain in health services.

It is necessary to listen more closely to their complaints, to understand the hidden meaning of the complaints, since they are often nonspecific and to dispel myths so that the assistance is increasingly holistic and humanized, offering true pharmacological conditions or not to improve the quality of life. of middle-aged women.

The small sample size, the convenience of its choice and the relevant sample loss did not allow inference between these results with the general population. However, the data are important because they arouse the need to study more in this regard, seeking in assistance to reduce the repressed demands of this public, which is increasingly larger and more present in health units.

References

1. Peixoto LN, et al. Perfil e intensidade de sintomas de mulheres no climatério avaliadas em Unidades Básicas de Saúde de Presidente Prudente. Colloq Vitae. 2015 abr; 7(1):85-93.
2. Ribeiro AS, et al. Avaliação dos sintomas e da qualidade de vida das mulheres no climatério. Revista da Universidade Vale do Rio Verde. 2015 jul; 13(1):48-65.
3. Santos LM, et al. Síndrome do climatério e qualidade de vida: uma percepção das mulheres nessa fase da vida. Revista APS. 2007 jun; 10(1):20-26.
4. Miranda JS, Ferreira MLSM, Corrente JE. Qualidade de vida em mulheres no climatério atendidas na Atenção Primária. Rev Bras Enferm. 2014 out; 67(5):803-809.
5. Cardoso MR, Camargo MJG. Percepções sobre as mudanças nas atividades cotidianas e nos papeis ocupacionais de mulheres no climatério. Cad. Ter. Ocup. 2015 jun; 23(3):553-569.
6. Lima JV, Angelo M. Vivenciando a inexorabilidade do tempo e as suas mudanças com perdas e possibilidades: a mulher na fase do climatério. Rev Esc Enferm USP. 2001; 35(4):399-405.
7. Valença CN, Germano RM. Concepções de mulheres sobre menopausa e climatério. Rev. Rene. 2010 mar; 11(1).
8. Rocha MDHA, Rocha PA. Do climatério à menopausa. Revista científica do ITPAC. 2010 jan; 3(1).
9. Ministério da Saúde (BR). Manual de Atenção à Mulher no Climatério/ Menopausa. 1. ed. Brasília (DF): MS, 2008.
10. Maron L, et al. A assistência às mulheres no climatério. Revista Contexto e Saúde. 2011 jun; 10(20):545-550.
11. Ministério da Saúde (BR). Envelhecimento e saúde da pessoa idosa. 1. Ed. Brasília (DF): MS, 2006.
12. Brucki SMD, et al. Sugestões para o uso do Mini-Exame do Estado Mental no Brasil. Arquivos de Neuro-Psiquiatria. 2003 abr; 61(3):777-781.
13. Dias RS, et al. Adaptação para o português do questionário de auto--avaliação de percepção de saúde física e mental da mulher de meia-idade – Questionário da Saúde da Mulher. Rev. Psiq. Clin. 2002 abr.-jul.; 29(4):181-189.
14. Bouzas I, Braga C, Leão L. Ciclo menstrual na adolescência. Adolescência e Saúde. 2010 jul; 7(3).
15. Aranha JS, et al. Climatério e menopausa: percepção de mulheres usuárias da estratégia saúde da família. Temas em Saúde. 2016; 16(2):588-612.
16. Brito NMB, et al. Avaliação da qualidade de vida de pacientes climatéricas em uma unidade de saúde. Universidade do Estado do Pará. Pará, 2010.
17. Lorenzi DRS, et al. Fatores indicadores da sintomatologia climatérica. Rev Bras Ginecol Obstet. 2005 jan; 27(1):12-19.
18. Carbonel APA, et al. Extrato de soja no tratamento de sintomas no período menopausal. Femina. 2012 set.-out.; 40(5).
9. Filippetto BM, et al. Terapia não-hormonal no manejo das ondas de calor no climatério. Femina. 2009 jan; 37(1).
20. Marques ECF. Análise da qualidade do sono em mulheres pós-menopausadas. UEPB. Campina Grande-PB, 2012.
21. Silva TB, Borges MMMC. Sexualidade após a menopausa: situações vivenciadas pela mulher. Revista Enfermagem Integrada. 2012 nov.-dez.; 5(2).