

PREVALENCE AND SEVERITY OF MENOPAUSAL SYMPTOMS IN WOMEN WITH CORONARY ARTERY DISEASE

Prevalência e intensidade de sintomas climatéricos em mulheres com doença arterial coronariana

Prevalencia y severidad de los síntomas menopáusicos en mujeres con enfermedad arterial coronaria

Article originated from a thesis entitled “Climacteric woman and coronary artery disease: unveiling senses and meanings”. Ribeirão Preto School of Nursing - São Paulo University (EERP-USP). 2014.

Líscia Divana Carvalho Silva¹, Marli Villela Mamede²

How to cite this article:

Silva LDC, Mamede MV. Prevalence and severity of menopausal symptoms in women with coronary artery disease. Rev Fun Care Online. 2020 jan/dez; 12:305-312. DOI: <http://dx.doi.org/10.9789/2175-5361.rpcfo.v12.6755>.

ABSTRACT

Objective: to Analyze the climate symptoms in women with coronary artery disease. **Methods:** participated in 40 (40) women, Cardiology outpatient clinic of the Hospital of the Federal University of Maranhão. It was menopause assessment scale. Research approved by the Research Ethics Committee of the school of nursing of Ribeirão Preto, University of São Paulo under number 293.900. **Results:** The most frequent symptoms reported were anxiety, malaise in the heart, irritability, muscle and joint problems. The most intense symptoms were the muscle problems and joint pain, anxiety, malaise in the heart, physical and mental exhaustion. The average score of the psychological symptoms was 23.8; somatic symptoms was 23.6 and urogenital symptoms was 9.2. **Conclusion:** climate symptoms seem to be confused with inherent problems of age and perceived with more intensity in the presence of diseases, including coronary artery disease.

Descriptors: Climacteric, Menopause, Coronary disease.

RESUMO

Objetivo: Analisar a sintomatologia climatérica em mulheres com doença arterial coronariana. **Métodos:** Participaram quarenta (40) mulheres, clientes do Ambulatório de Cardiologia do Hospital da Universidade Federal do Maranhão. Utilizou-se a Escala de Avaliação da Menopausa. Pesquisa aprovada pelo Comitê de Ética em Pesquisa da Escola de Enfermagem de Ribeirão Preto, Universidade São Paulo sob o número 293.900. **Resultados:** Os sintomas mais frequentes relatados foram ansiedade, mal estar no coração, irritabilidade, problemas musculares e nas articulações. Os sintomas mais intensos foram os problemas musculares e nas articulações, ansiedade, mal estar no coração, esgotamento físico e mental. A média de escore dos sintomas psicológicos foi 23,8; nos sintomas somáticos foi 23,6 e nos sintomas urogenitais foi 9,2. **Conclusão:** Os sintomas climatéricos parecem ser confundidos

1 Nurse. PhD. Professor, Nursing Department, Federal University of Maranhão (UFMA). São Luís, Maranhão, Brazil. ORCID: 0000-0002-3624-6446 E-mail: liscia@elointernet.com.br

2 Nurse. Post-PhD. Professor at the Nursing Department, Ribeirão Preto College of Nursing, University of São Paulo (EERP-USP). Ribeirão Preto, São Paulo, Brazil. ORCID ID: 0000-0002-6478-8680. E-mail: mavima@eerp.usp.br

com problemas inerentes à idade e percebidos com mais intensidade na presença de doenças, inclusive a doença arterial coronariana.

Descritores: Climatério, Menopausa, Doença das coronárias.

RESUMÉN

Objetivo: analizar los síntomas de clima en mujeres con enfermedad arterial coronaria. **Métodos:** participaron en 40 (40) mujeres, clínica de consulta externa de Cardiología del Hospital de la Universidad Federal de Maranhão. Fue la escala de evaluación de la menopausia. Investigación aprobado por el Comité de ética de investigación de la escuela de enfermería de Ribeirão Preto, Universidad de São Paulo bajo número 293.900. **Resultados:** informaron de los síntomas más frecuentes fueron ansiedad, malestar en el corazón, irritabilidad, problemas musculares y la articulaciones. Los síntomas más intensos fueron los problemas musculares y dolor en las articulaciones, ansiedad, malestar en el corazón, agotamiento físico y mental. La puntuación media de los síntomas psicológicos fue 23,8; síntomas somáticos fue 23.6 y síntomas urogenitales 9.2. **Conclusion:** clima síntomas parecen ser confundidos con problemas inherentes de la edad y percibe con más intensidad en la presencia de enfermedades, incluyendo enfermedad arterial coronaria.

Descritores: Menopausia, menopausia, enfermedades del corazón.

INTRODUCTION

In Brazil, women's health was incorporated into national policies in the early twentieth century, however, despite women's achievements in public policies for women's health care and the focus on the need for a comprehensive approach in all development phases, including climacteric, it is clear that the actions to this clientele have a more reproductive and biological dimension.¹ The National Policy of Primary Care, according to the current rules of the Unified Health System (SUS), defines the Organization of Health Care Network as a strategy for comprehensive care directed to the health needs of the population.² However, health professionals indicate that the lines of care remain focused on women of reproductive age with normative actions in pre-natal programs, childbirth and the puerperium, family planning, cervical and breast cancer, being the the climacteric phase the least observed.²⁻⁴ Approximately 60 to 80% of women over 50 report some unpleasant symptoms during climacteric, with vasomotor and genital symptoms being especially common.⁵

Beliefs and attitudes toward climacteric have a significant impact on life experience and perception. Menopause manifestations may be dependent on psychological, biological, social and cultural processes; they may vary within and across cultures and will change over time. The general differences in climacteric experience vary between societies and cultures allowing for the identification of different cultural perceptions; this reinforces the critical analysis and understanding of both the lived experience of menopause and its social conception. Anthropological, sociological and intercultural studies have challenged the concept of menopause as a universal phenomenon,

as they have revealed a wide range of symptom perceptions among women from different ethnic backgrounds living in different countries and cultural backgrounds. Cultural explanations of these differences include variables such as lifestyle, differences in reproductive patterns that affect biological processes, menopausal beliefs and attitudes, and women's social status.⁶ However, there are still few Brazilian studies addressing climacteric as a multifactorial question.

The increased risk of coronary artery disease (CAD) in women over 50 seems to be related to menopause with consequent estrogen deprivation. The relationship between menopause and risk factor for cardiovascular disease is not yet clear; the high prevalence of hypertension, hyperglycemia and endothelial dysfunction among postmenopausal women may be related to obesity and not just menopause. CAD is the most common cause of death in developed and developing countries worldwide, and is considered to be the leading group of heart disease, especially ischemic heart disease, followed by heart valve disease, congenital heart disease and cardiomyopathy.⁷⁻⁸ A ischemic disease, has traditionally been considered to be linked to males, which has provided a low level of awareness about the real scope of the problem for women, both health professionals and the population, which justifies the need for inclusion of the disease. gender perspective in planning and organizing health practices.⁹

The climacteric, consisting of specific manifestations and symptomatology, triggers interactive processes and meanings in women that influence their decision-making, especially regarding the establishment of their own condition of considering themselves ill or considering that whatever symptoms are felt and perceived. It is part of the feminine essence and therefore deserves no credit or even due attention. The complexity of hormonal, psychosociocultural factors and biological aging itself produce vulnerabilities of different natures and great variability of symptoms that may have long-term health consequences for women. All these factors that influence the physical and emotional state of women in climacteric can increase women's vulnerability to various diseases such as CAD.

The concern to develop this study stems from a question that has greatly disturbed us, especially in the search for an answer to the following question: What symptoms do women attribute to climacteric while having a heart disease? We sought to analyze the climacteric symptoms of women with CAD by applying the menopause assessment scale (MRS).

METHODS

Study conducted at the Cardiology Ambulatory of the Federal University of Maranhão Hospital. Inclusion criteria were women aged 45 to 65 years who attended the cardiology outpatient clinic during the study period with reference to climacteric symptoms and patients with

CAD confirmed by coronary arteriography. Exclusion criteria were those with speech difficulties, mental disorders, submitted to oophorectomy, users of hormone replacement therapy (HRT) in the last five years and who did not identify any climacteric symptoms according to the Menopause Rating Scale (MRS).

MRS was constructed and validated in Brazil by Heinemann et al.¹⁰, consisting of 11 items related to symptoms common to the climacteric and evaluated in degrees of intensity and nature: vasomotor symptoms, heart complaints, insomnia, depression, nervousness, anxiety, lower capacity, sexuality, urinary complaints, vaginal complaints and locomotor complaints. The score of each symptom ranges from zero (no symptomatology) to one point (highest symptom intensity), with a grading range of 0.1 to 1. The final scale and subscale score (somatic, psychological and urogenital) is obtained. with the simple average of the sum of the points attributed to the 11 evaluated symptoms. Achieving higher scores translates into a quality of life compromised by climacteric symptoms.

The study participants were asked, while waiting for a medical appointment, to identify the climacteric symptoms they recognized as having experienced in the past year. According to MRS, the following question was asked: "Which of the following symptoms, and to what extent, would you say you have felt in the last 12 months?" As for identifying menopausal status, this was determined by the information women gave about the menstrual characteristics of the last three months (frequency, spacing, regularity and menstrual flow) when present or the time of amenorrhea, according to the woman's clinical history. The participants were also investigated as to the history of depression to verify the presence of an association between climacteric and depression. Therefore, we sought to identify a history of previous depressive episodes by asking the following question: "Have you had depression before or have you taken medication for

Depression?" Of the women interviewed - 48 women, eight women were excluded from the survey, three because they had previously undergone oophorectomy and five had hysterectomy. The sample was represented by 40 women. Data were distributed in frequency and mean scores were calculated. Data collection took place in 2013, after approval by the Research Ethics Committee of the University of São Paulo at Ribeirão Preto College of Nursing (EERP-USP) under number 293,900 and CAEE 11288913.2.00005393. The Informed Consent Form (ICF) was presented and read and requested for signature.

RESULTS

Most participants were aged over 54 years (77.5%), average age 58 years, brown (57.5%), stable union (52.5%), Catholic (60%), low education (70%), occupied the occupation of the home (90%). Comorbidities were identified as systemic arterial hypertension, diabetes, congestive heart failure and chronic renal failure. All women reported difficulties in performing domestic activities, with reduced vigor and frequencies and only five (12.5%) reported contributing to family income. Regarding the gynecological and obstetric antecedents, the average age of the menarche was at 13 years. More than half of the women (52.5%) became pregnant three to five times, reported having had abortions and most had their first child under 18 (52%). Almost all women reported having had menopause (97.5%), only one woman had perimenopause and four had early menopause. The minimum age of onset of menopause was 39 years and the maximum of 55 years, the average age of menopause was 45 years, only one woman reported to have used HRT to relieve climacteric symptoms and for a period of eight years. of two years.

Table 1 refers to the frequency, percentage, score and mean of climatic symptom scores presented by women in the last 12 months, according to the MRS scale.

Table 1 - Frequency, percentage, score and mean score of climacteric symptoms in women of the Cardiology Ambulatory of the University Hospital of UFMA. São Luís - MA, 2013.

Symptoms	Frequency	Percentage	Score	Average Score
1. Lack of air, sweats, heat	35	87	22,8	0,57
2. Badness of the heart	38	95	25,6	0,64
3. Sleeping Problems	34	85	19,7	0,49
4. Depressed mood	32	80	21,9	0,55
5. Irritability	38	95	23,1	0,58
6. Anxiety	39	97	26,2	0,65
7. Physical and mental exhaustion	35	87	24,1	0,60
8. Sexual problems	30	75	18,5	0,46
9. Bladder Problems	20	50	11,6	0,29
10. Vaginal dryness	15	37	6,7	0,17
11. Muscle and joint problems	36	90	26,4	0,66

MRS- Menopause Rating Scale

The symptoms most frequently reported by women were anxiety (39), followed by heart complaints (tachycardia, palpitation, tiredness, chest and back pain) and irritability respectively (38), muscle and joint problems (36), shortness of breath, sweating, heat and physical and mental exhaustion respectively (35), sleep problems (34), depressed mood (32), sexual problems (30), bladder problems (20) and vaginal dryness (15). The table below shows the symptoms and their intensity presented by women in the last 12 months according to the MRS scale.

Chart 1 - Distribution of the frequency of climacteric symptoms according to the degrees of intensity (scores) in women of the Cardiology Ambulatory of the University Hospital of UFMA. São Luís - MA, 2013.

Symptoms	None	Light			Moderate		Intense		Highly intense			Total score	Avg. score
		0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0		
1. Lack of air, sweats, heat	5	0	1	3	2	9	4	4	1	6	5	22,8	0,5
2. Badness of the heart	2	0	4	2	2	6	2	6	2	6	8	25,6	0,6
3. Sleeping Problems	6	0	4	4	2	7	3	6	1	4	3	19,7	0,4
11. Muscle and joint problems	4	0	1	5	3	2	4	0	1	7	13	26,4	0,6
4. Depressed mood	8	0	4	1	2	6	1	2	3	4	9	21,9	0,5
5. Irritability	2	2	3	4	3	7	3	2	3	2	9	23,1	0,5
6. Anxiety	1	3	1	1	3	9	2	4	0	3	13	26,2	0,6
7. Physical and mental exhaustion	5	0	0	5	2	5	5	2	4	3	9	24,1	0,6
8. Sexual problems	11	0	0	3	2	10	3	3	0	1	7	18,5	0,4
9. Bladder problems	20	0	2	4	2	2	1	2	3	2	2	11,6	0,2
10. Vaginal dryness	25	1	3	1	2	4	1	2	0	1	0	6,7	0,1

In decreasing order of intensity, the average of symptoms in women were muscle and joint problems (0.6), anxiety (0.6), heart complaints (0.6), physical and mental exhaustion (0.6), irritability (0.5) and shortness of breath, sweating, heat (0.5). Then comes the symptoms related to depressive mood (0.5), sleep problems (0.4), sexual problems (0.4), bladder problems (0.2) and the least intense was vaginal dryness (0.1). Although muscle and joint problems were not the most frequent, when analyzed from the point of view of the intensity of symptoms, they were found to be more intense by the large majority of participants whose score reached the highest score (26.4), with a mean score of 0.6. Then anxiety-related symptoms appear, the score totaled 26.2 with a mean score of 0.6, and in cardiac complaints the score totaled 25.6 with a mean score of 0.6 considered both to be intense. Eight women (20%) reported having had depression, all underwent treatment, one (01) still remains under treatment.

The physical and mental exhaustion was reported by twenty-three women as intense to very intense, the score totaled 24.1 with a mean score of 0.6, classified as intense. Regarding irritability, the score reached 23.1 and average score 0.5, considered in the group of women of moderate intensity. Symptoms related to breathlessness, sweat and heat score totaled 22.8 with a mean score of 0.5, intensity considered, therefore, as moderate. Regarding depressive mood, the score totaled 21.9 with a mean score of 0.5, being classified as moderate. Sleep problems reached a score of 19.7 with a mean score of 0.4, considered moderate in all participants. Regarding sexual problems, the score totaled 18.5 with a mean score of 0.4, classified as moderate. Bladder problems were poorly reported; the score reached 11.6 a mean score of 0.2 whose intensity was considered mild. Vaginal dryness was the least reported, the score reached 6.7 with a mean score of 0.17, classified as mild.

Table 2 presents the distribution of symptoms according to the nature of the symptoms: somatic, psychological and urogenital according to MRS.

Table 2 - Distribution of frequency, score and mean score of climacteric symptoms, according to MRS subscales (somatic, psychological and urogenital) in women at the Cardiology Outpatient Clinic of the UFMA University Hospital. São Luís - MA, 2013.

Symptoms	Frequency	Percentage	Score	Average Score
Somatic				
1. Lack of air, sweats, heat	35	87	22,8	0,5
2. Badness of the heart	38	95	25,6	0,6
3. Sleeping Problems	34	85	19,7	0,4
11. Muscle and joint problems	36	90	26,4	0,6
Total score (average score): 94,5 (23,6)				
Psychological				
4. Depressed mood	32	80	21,9	0,5
5. Irritability	38	95	23,1	0,5
6. Anxiety	39	97	26,2	0,6
7. Physical and mental exhaustion	35	87	24,1	0,6
Total score (average score): 95,3 (23,8)				
Urogenital				
8. Sexual problems	30	75	18,5	0,4
9. Bladder problems	20	50	11,6	0,2
10. Vaginal dryness	15	37	6,7	0,1
Total score (average score): 36,8 (9,2)				

The highest average score related to somatic symptoms related to muscle and joint problems (0.66), among psychological symptoms was anxiety (0.6) and for urogenital symptoms were sexual problems (0.4). The overall average of somatic symptom scores totaled, in descending order, 23.8 for psychological symptoms, 23.6 for somatic symptoms, and 9.2 for urogenital symptoms. Regarding the severity of climacteric symptoms according to the MRS somatic, psychological and urogenital subscales, it was observed that the somatic and psychological climacteric symptoms were distributed in all severity levels (scarce to severe), unlike the urogenital symptoms that varied from scarce to moderate. Somatic symptoms were most often classified as moderate (47.5%) and severe (25%), psychological as mild and severe (32.5%) and moderate (25%), and urogenital symptoms as asymptomatic or scarce (52.5%) and light (37.5%).

DISCUSSION

The predominance of women in the older age group (60 to 65 years) confirms that the incidence of CAD in women increases with aging. The average age of menopause of 45 years was below that presented by the World Health Organization (1996), that is, around 50

years and regarding the age of menarche of 13 years, the studies show great variability regarding the average age of occurrence of menarche, ranging nationally from 10 to 13 years and from 12 to 13 in international populations.

The age of menarche seems to continue to decline, in both developed and developing countries, but much more slowly in recent years than in the late nineteenth and early twentieth centuries. This variability in different countries and regions is probably related to factors such as climate, geographic location, nutritional status, socioeconomic status, education, ethnicity, number of children in the family and others. A study that assessed the secular trend of menarche between 2001 and 2010 found that menarche advanced 3.24 months in 10 years from 12.3 years in 2001 to 12.0 years in 2010 and occurred earlier in the group of overweight girls showing that obesity is contributing to menarche anticipation.¹¹

There are few population-based epidemiological studies conducted on Brazilian women regarding the age of menopause. In population-based studies conducted in southern Brazil, the average age at onset of menopause was 44 and 45 years and in a study conducted in Latin America, the age of menopause was between 40 and 59 years. The results showed variability in age at menopause, revealing an average age of 49.4 years whose markers

such as lower income and conditions of poverty may influence the earlier onset of menopause.¹²

Regarding HRT in the last decades, many questions have been raised about the side effects and risks of HRT, its indication has been made with some restrictions which may explain the inexpressive number of women in this study who used it. HRT is indicated as a therapeutic measure for the relief of climacteric symptoms, with considerable benefits on quality of life. However, concomitantly with the relief of climacteric symptoms, multiple other effects, many of which are harmful, on the organ and systems of the female organism. HRT is not recommended for the sole purpose of reducing the risk of CAD in women in the menopausal or postmenopausal transition period. If recommended, it should be clearly indicated for its use, individualized and adjusted according to symptoms, prevention needs, personal and family history, relevant research results, women's preferences and expectations.¹²

The high frequency of climacteric symptoms identified in this study seems to be related to the fact that the sample consisted of women diagnosed with CAD, characteristics similar to a study that identified more symptoms in the group of women with cardiovascular disease when compared with groups of women with osteoporosis and the group without chronic disease.¹³

Therefore, the symptoms reported as more intense were muscle and joint problems with a prevalence of 66%, corroborating the results found in other studies.¹⁴⁻¹⁵ In a cross-sectional descriptive observational study in premenopausal women, peri-menopausal and postmenopausal, conducted in Brazil, which applied the same instrument - the MRS, found a prevalence of 88% for these symptoms. It is well known that various muscle and joint problems tend to arise with aging. In general terms it is not known to what extent aging complicates menopause, or even if it complicates it in any way. Termination of ovarian function may not be the direct cause of symptoms; however, the effects of estrogen deficiency may be more strongly felt in the presence of these factors, and may be aggravated by them.¹⁶

In a retrospective study of 500 patients between 2011 and 2012 aimed at verifying whether menopause is an independent predictor of ischemia in women, an association between entry into menopause and the presence of CAD in low-risk women was identified. However, the study points out that among women with multiple risk factors such as diabetes, hypertension, dyslipidemia, obesity, physical inactivity, menopause may not be a predictor of ischemia. Several studies have shown an association between menopausal symptoms and depression and between CAD and depression. Despite the higher prevalence of CAD after menopause, more studies and especially with more patients are needed to confirm whether menopause is a cardiovascular risk factor.¹⁷

The literature shows that there is no significant difference between the occurrence of depression and

anxiety in climacteric, being the most common depression in women with anxiety and insomnia. The significant prevalence of anxiety and depression in climacteric women may be the result of several factors, such as changes and hormonal fluctuations, social and emotional factors present in this age group and difficulties in seeking psychiatric care for predominantly mild and moderate disorders. Study found higher frequency of depressive symptoms in women with CAD compared with women with osteoporosis or without chronic disease. The authors argue the high level of cortisol as a possible causal factor of low bone mineral density in women with depression. In addition, the sociocultural, individual and biological factors that act together favoring the onset of these changes, and it is important to consider whether depressive symptoms in menopause result exclusively from hormonal fluctuations observed at this stage or previous antecedents of depression or both factors.¹³

A systematic review on the prevalence of depressive symptoms in the climacteric revealed significant variation reaching rates between 19% and 73%, and it could not be characterized whether the depressive symptomatology was exclusively due to hormonal fluctuations or previous history of depression or both factors. There are divergences in the studies regarding the prevalence of depression, but in most of them the climacteric is not associated with a higher incidence of depression, reinforcing that during this period the depressive episode may manifest in those women who previously had some mood disorder¹⁸. It is known that emotional states can act as a trigger for the emergence of various diseases and should be identified and treated early, especially in the context of the rapidly aging world population and the increase of degenerative chronic diseases. Early recognition of the way in which the individual reacts to stress makes it possible to teach him new forms of reaction and thus reduce the chance of this behavior contributing to the manifestation of a disease¹⁹.

The findings of the present research reveal that since cardiac climacteric symptoms were present in women's lives and assumed to be part of the female condition in the menopausal period, it is noteworthy that they could easily be confused with CAD itself, and therefore not perceived as such, undervaluing its importance in detecting the disease. Concerns are revealed about the need for action by health professionals, as they show a high frequency and intensity of climacteric symptoms among women diagnosed with CAD.

Climacteric symptoms signaled to women changes in their body, well-being (warmth, feeling of sadness, irritability, nervousness, insomnia, depression) and all these climacteric symptoms that influence the physical and emotional state of women in climacteric may increase vulnerability to various diseases such as CAD. Understanding the climacteric symptoms in women with heart disease is a very important aspect, as it also allows the professional to identify common sense knowledge about the climacteric, the disease and its manifestation, as well as the opportunity

to know their own female behavior relative to the use of health services when one experiences a symptom that may herald an episode like CAD. Health professionals can intervene and/or collaborate in order to alleviate the state of vulnerability, superseding misconceptions, prejudices and exclusionary about this moment, appropriating health education as a strategy that can involve women and even their partners in understanding this process and developing a new look at this phase of female life that can be aggravated by a pre-existing disease such as CAD. The welcoming, the qualified listening, the formation of support groups and the relationship of the professionals with the users are tools that health professionals need to use in this context. The relevance of the analysis of the individual and contextual determinants of health services utilization of women diagnosed with CAD and who are simultaneously experiencing a period of biological and social transition in their lives, the climacteric, is in the attribution and identification of their social places, which can be expressed as a frame that configures the female way of being, feeling, perceiving and acting in the face of complaints and symptoms, even when they do not perceive the processes experienced so explicitly.

The high prevalence of climacteric symptoms among women with chronic disease, especially coronary disease, supports the thesis that different chronic diseases may be associated with different symptom profiles such as climacteric. The literature also points out that secondary prevention of CAD is extremely important because the recognition of signs and symptoms associated with climacteric can prevent new events after its manifestation and the risks can be substantially reduced through effective management of lifestyle changes and in pharmacotherapy.²⁰

Due to the growing demand for health services, the task related to secondary prevention of heart disease has been directed to nurses whose effectiveness has been shown to reduce some cardiovascular risk factors. It is noteworthy that specialist nurses, in addition to identifying risk factors for recurrence of the cardiac episode, play a relevant role in the educational activities and care of patients under the supervision of a cardiologist, thus favoring the acquisition and maintenance of healthy habits.^{18,20} More and more studies are highlighting the need to include a gender perspective in health care and trying to get closer to understanding how women experience and interpret climacteric symptoms and how they relate and feel their disease, especially CAD.²⁰

CONCLUSION

Despite the limitations of the study, represented by a small sample that prevents generalizations, the results announce that more attention should be given to climacteric symptoms and their relationship with CAD, as well as the

increase of educational actions to the female population regarding the meaning of caregiving. themselves at this stage of life. Further research is suggested, compared to women in other outpatient, menopausal but CAD-free outpatients, control groups, other realities including different social markers, and broader quantitative or qualitative analyzes.

Understanding how women with CAD find themselves with climacteric-related symptoms is a very important aspect in the individual and contextual determinants of health services utilization of women with heart disease who are simultaneously experiencing a period of biological and social transition in their lives. , the climacteric. Therefore, considering their perspective on climatic manifestations offers an opportunity to plan health promotion strategies, early identification and detection of signs, with implications for health care satisfaction and utilization. This action contributes, consequently, to reduce morbidity and mortality and prevention of more serious events in women.

REFERENCES

1. Daline AS, Santos MAM. Ações das enfermeiras em unidades de saúde da família sobre a saúde da mulher climatérica. *Arq Ciênc Saúde*. 2014; 21(1): 36-41.
2. Ministério da Saúde (Brasil) Departamento de Atenção Básica. Controle dos cânceres do colo do útero e mama/Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Brasília. [citado 2015. dez 22]. Disponível em: http://bvsm.s.saude.gov.br/bvs/publicacoes/controle_canceres_colo_uterio_2013.pdf
3. Paschoal MA, Polesi EA, Simioni FC. Avaliação da variabilidade da frequência cardíaca em mulheres climatéricas treinadas e sedentárias. *Rev Bras Cresc Desenv Hum*. 2010;20(3):778-86.
4. Valença CN, Germano RM. Concepções de mulheres sobre menopausa e climatério. *Rev Rene*. 2010;11(1):161-171.
5. Freeman EW, Sherif K. Prevalence of hot flushes and night sweats around the world: asystematic review. *Climacteric*. 2007;10(3):197-214.
6. KELLY, B. Menopause as a social and cultural construction. *Xavier University of Louisiana's Undergraduate Research Journal*, St Louis, 2011; 8 (2): 29-39.
7. Antonicelli R, Olivieri F, Morichi V, Urbani E, Mais V. Prevention of cardiovascular events in early menopause: a possible role for hormone replacement therapy. *Int J Cardiol*. 2008;130: 140-6.
8. Evora PRB, Nather JC, Rodrigues AJ. Prevalência das Doenças Cardíacas Ilustrada em 60 Anos dos Arquivos Brasileiros de Cardiologia. 2014; 102(1):3-9.
9. Villela WV. Relações de gênero, processo saúde-doença e uma concepção de integralidade. *Bol Inst Saúde*. 2009;48:26-30.
10. Heinemann K, Ruebig A, Potthoff P, Schneider HP, Strelow F, Heinemann LA et al. The Menopause Rating Scale (MRS): A methodological review [Internet]. *Health and Quality of Life Outcomes*. 2004; 2:45-28. [citado 2014.02.16]. Disponível em: <http://www.hqlo.com/content/2/1/45>.
11. Castilho SD, Pinheiro CD, Bento CA, Barros-Filho AA, Cocetti M. Tendência secular da idade da menarca avaliada em relação ao índice de massa corporal. *Arq bras Endocrinol Metab*. 2012;56(3):195-200.
12. Brischiliari SCR, Dell'agnolo CM, Gil LM, RomeiroTC, Gravena AAF, Carvalho MDB et al. Papanicolaou na pós-menopausa: fatores associados a sua não realização. *Cad Saúde Pública*. 2012; 28(10):1976-84.
13. Wang HL, Tai MK, Hung HM, Chen CH. Unique symptoms at midlife of women with osteoporosis and cardiovascular disease in Taiwan. *Menopause*. 2013;20(3):315-21.

14. Santos DAM. Prevalência de isquemia miocárdica na cintilografia em mulheres nos períodos pré/pós-menopausa. *Arq bras Cardiol.* 2013;101(6): 487-94.
15. Castelo Branco C, Blümel JE, Chedraui P, Calle A, Bocanera R, Depiano E et al. Age at menopause in latin américa. *Menopause.* 2006; 13(4):706-12.
16. Polisseni AF, Araújo DAC, Polisseni F, Mourão Júnior CA, Polisseni J, Fernandes ES et al. Depressão e ansiedade em mulheres climatéricas: fatores associados. *Rev Bras Ginecol Obstet.* 2009;31(1):28-34.
17. Fernandes RCL, Rozenthal M. Avaliação da sintomatologia depressiva de mulheres no climatério com a escala de rastreamento populacional para depressão. *Rev Psiquiatr.* 2008;3(30):192-200.
18. Voogdt-Pruis HR, Vrijhoef HJM, Beusmans GHMI, Gorgels APM. Quality improvement of nurse-led aftercare to outpatients with coronary heart disease: report of a case study. *Int J for quality in health care.* 2012; 24(3):286-92.
19. Salles LF, Silva MJP. A identificação da ansiedade por meio da análise da íris: uma possibilidade. *Rev Gaúcha Enferm., Porto Alegre (RS)* 2012 Mar;33(1):26-31.
20. Cantus DS, Ruiz MCS. A cardiopatia isquêmica na mulher. *Rev latino-am Enfermagem.* 2011;19(6):1462-69.

Received in: 16/08/2017

Required revisions: 14/11/2017

Approved in: 22/11/2017

Published in: 10/01/2020

Corresponding author

Líscia Divana Carvalho Silva

Address: University of Sao Paulo, Nursing school,

Professor Street. Hélio Lourenço, 3900

Vila Monte Alegre, Ribeirão Preto/SP, Brazil

Zip code: 14040-902

E-mail address: liscia@elointernet.com.br

Disclosure: The authors claim to have no conflict of interest.