




ORIGINAL


Clinical and dietary profile of postmenopausal elderly women

Perfil clínico e alimentar de idosas na pós-menopausa
Perfil clínico y dietético de mujeres mayores en postmenopausia


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ABSTRACT

Objective: to investigate the clinical symptoms and eating habits of postmenopausal elderly women. **Method:** a descriptive, cross-sectional study with a quantitative approach, carried out with 96 elderly women from the Family Health Strategy (FHS). Data collection took place using a semi-structured form and interviews conducted at the FHS and at the participants' homes. The data were distributed and ordered in the statistical program IBM Statistical Package for the Social Sciences (SPSS) and the results were analyzed and discussed based on the specific literature and presented in tables. **Results:** when asked what symptoms they had during menopause, 30.2% reported no symptoms and 15.5% said they felt hot flashes, known as a sudden feeling of heat. Regarding food, it was observed that foods known in Brazilian cuisine are consumed less than three times a week. Among those not consumed, almonds, tuna preserved in oil, natural yogurt and skimmed milk prevailed with the highest percentages. **Conclusion:** all the symptoms investigated during menopause and postmenopause were mentioned, with the most common being highlighted. The presence of calcium in the participants' diet was considered satisfactory, since foods rich with the mineral are present in the menu of the elderly women in daily portions.

Descriptors: Postmenopause. Aging. Dietary Supplements.

RESUMO

Objetivo: investigar os sintomas clínicos e o hábito alimentar das idosas na pós-menopausa. **Método:** estudo descritivo, transversal, de abordagem quantitativa, realizado com 96 idosas da Estratégia Saúde da Família (ESF). A coleta de dados ocorreu por meio de formulário semiestruturado e entrevistas realizadas nas ESF e no domicílio das participantes. Os dados foram distribuídos e ordenados no programa estatístico IBM Statistical Package for the Social Sciences (SPSS) e os resultados analisados e discutidos com base na literatura específica e apresentados em tabelas. **Resultados:** quando questionadas sobre quais sintomas apresentaram durante a menopausa, 30,2% relataram nenhum sintoma e 15,5% disseram sentir fogachos, conhecidos como ondas de calor. Sobre a alimentação, observou-se que alimentos conhecidos na culinária brasileira são consumidos em uma frequência menor que três vezes por semana. Dentre os não consumidos, prevaleceram amêndoas, atum conservado em óleo, iogurte natural e leite líquido desnatado com as maiores porcentagens. **Conclusão:** todos os sintomas investigados durante a menopausa e pós-menopausa foram citados, obtendo destaque os mais comuns. Considerou-se satisfatória a presença do cálcio na alimentação das participantes, uma vez que alimentos ricos no mineral estão presentes no cardápio das idosas em porções diárias.

Descritores: Pós-menopausa. Envelhecimento. Suplementos Nutricionais.

RESUMÉN

Objetivo: investigar los síntomas clínicos y los hábitos alimentarios de mujeres mayores en postmenopausia. **Método:** estudio descriptivo, transversal, con abordaje cuantitativo, realizado con 96 mujeres de la Estrategia Salud de la Familia (ESF). Recolección de datos mediante formulario semiestructurado y entrevistas realizadas en la ESF y en los domicilios de las participantes. Datos distribuidos y ordenados en el programa estadístico IBM Statistical Package for the Social Sciences (SPSS) y resultados analizados y discutidos con base en la literatura específica y presentados en tablas. **Resultados:** cuando se les preguntó qué síntomas tenían durante la menopausia, el 30,2% no reportó síntomas y el 15,5% dijo sentir sofocos, conocidos como calores súbitos. En cuanto a la alimentación, se observó que los alimentos de la cocina brasileña se consumen menos de tres veces por semana. Entre los no consumidos, predominaron almendras, conserva de atún en aceite, yogur natural y leche desnatada con los porcentajes más altos. **Conclusión:** se mencionaron todos los síntomas investigados durante la menopausia y posmenopausia, destacándose los más comunes. La presencia de calcio en la dieta se consideró satisfactoria, ya que los alimentos ricos en el mineral están presentes en el menú de las participantes en porciones diarias.

Descritores: Postmenopausia. Envejecimiento. Suplementos Dietéticos.

INTRODUCTION

Aging is a physiological and continuous process that affects the population, which can cause a sequence of biological and social changes in individual living conditions. Fertility rates are falling and, as a result, there is a longer life expectancy, which is a characteristic that describes the current stage of the demographic transition in the world. ⁽¹⁾

According to data from the Instituto Brasileiro de Geografia e Estatística - IBGE (Brazilian Institute of Geography and Statistics), Brazil stands out in the female population segment, with 96 men for every 100 women. ⁽²⁾

Women continue to live longer than men. It is estimated that in 2060 their life expectancy will be 84.4 years, against 78.03 for men. In this sense, better attention is needed in health care to be provided to women, since, during their aging, they undergo different biological, physiological and psychological changes. ⁽²⁻³⁾

One of the changes that arise during the aging process and that brings more change in women's lives is the climacteric. It is a biological phase of the female life cycle that normally begins at around 40 years of age, and can extend up to 65 years of age. ⁽⁴⁾ Then there is postmenopause, which is a natural phenomenon that accompanies women, along with behavioral, physical and hormonal changes. It is characterized by the cessation of menstrual cycles and the changes that tend to increase body fat mass, the abdominal perimeter, in addition to reducing muscle and bone tissues, leading to pathologies. ⁽⁵⁾

According to estimates by the Ministry of Health, in 2007 the Brazilian female population would total more than 98 million women. In this universe, about 30 million are between 35 and 65 years old, which means that 32% of women in Brazil are in the age group in which climacteric occurs. ⁽⁶⁾

Part of the health problems in the climacteric are directly or indirectly related to inadequate food intake, whether in excess or deficiency, for long periods. Thus, this inadequacy is an important risk factor for several diseases. ⁽⁷⁾

The eating habits of women during the climacteric have taken on significant importance, with the diet adopted in this period having a great impact on the health of this group, which may be a protective factor or risk factor for comorbidities. ⁽⁸⁾

The knowledge of the eating habits of women in this phase can have important implications for public health in the correct directing of disease prevention and treatment actions, especially in the formulation of nutritional interventions and guidelines, aiming to contribute to the proposal of measures to alleviate the health problems of this period. ⁽⁸⁾

The interest in developing the study came as a result of the increase in the elderly population, especially women, in view of the need to assess dietary conditions during postmenopause. Given the above, the following question arises: What is the eating habit adopted/practiced by postmenopausal women?

The study is relevant to the health area, as it will show the professionals the dietary conditions of the studied population, thus being able to contribute to a

better assistance and care during this phase of changes. A directed follow-up is extremely necessary, and it is up to professionals to offer assistance aimed at improving the quality of life of women at this stage of life. Thus, the present study aimed to investigate the clinical symptoms and eating habits of postmenopausal elderly women.

METHOD

The present study is a subproject of a larger study carried out with the elderly. This is a descriptive, cross-sectional study, with a quantitative approach, carried out in two Family Health Strategies (FHS) in the urban area of a municipality in the Brazilian state of Piauí. The locations were chosen because they are an internship field for undergraduate students of the Bachelor of Nursing course at the Senador Helvécio Nunes de Barros Campus (CSHNB), at the Universidade Federal do Piauí (UFPI), and because there are groups of elderly in these FHS that participate in extension projects developed by the faculty and students of the mentioned University.

The study population consisted of 140 elderly women registered in the FHS. The sample was selected according to the following inclusion criteria: being 60 years of age or older; female; being in postmenopause; be registered and regularly monitored in the FHS and participate in all stages of the research. As exclusion criteria were established the presence of physical, cognitive or mental limitations that prevented the understanding of the instrument, according to a report by a family member / caregiver or by the researcher's detection after the general assessment. In this case, the fact that the elderly woman was postmenopausal or not was self-reported.

For the sample calculation, the formula for cross-sectional studies with finite population was used:

$$n = \frac{Z^2_{(\alpha/2)} \cdot p(1-p) \cdot N}{E^2(N-1) + Z^2_{(\alpha/2)} \cdot P(1-P)}$$

Where: n = Size of the sample to be used; Z = Reduced Variable; α = Type 1 error (proportion); N = Size of the population that eats calcium-rich food; p = true probability of the event; E = Sampling error.

As a parameter, the variable for assessing dietary calcium intake was adopted, which occurred through data on food frequency, taking into account a survey in which 27.2% of those surveyed consume three or more daily servings of milk and its derivatives. ⁽⁹⁾ The following values were adopted: Z = 1.96, α = 5%, p = 27.2%, n = 140, E = 0.05. Forty-four elderly women were excluded from the study. Of this number, 13 did not accept to participate in the research and 31 were not found during data collection, totaling a final sample of 96 participants.

Data collection took place between August and September 2017, using a semi-structured form with questions regarding the variables: sociodemographic; clinical (survey of climacteric symptoms); and diet (nutrient frequency of foods rich in calcium) data. The form was built by the researcher herself after studying and reading scientific material related to

the research topic. At the time of use, it was validated by judges who were experts on the subject.

The interviews were conducted in the Family Health Strategies and at home. At first, an invitation was made for participation and presence of elderly women in the research through Community Health Agents (CHA). The information was collected individually, in a private room of the unit itself, while waiting for nursing care, with an active search being made for those who were unable to attend the unit, in order to complete the sufficient number for the sample. It is noteworthy that the participants were not in a hurry to answer the form while waiting for assistance.

The data were distributed and ordered using the statistical program IBM Statistical Package for the Social Sciences (SPSS), version 22.0. The results were analyzed and discussed based on specific literature, descriptive and inferential statistics and presented in tables, as presented throughout this article.

The study was submitted to the Research Ethics Committee of the Universidade Federal do Piauí, approved by opinion No. 2,344,635 and developed according to the requirements proposed by Resolution 466/2012, of the National Health Council - CNS.⁽⁹⁾ Those who agreed to participate in the research, were informed about the objectives and methodology of the study and, upon acceptance of participation in the research, signed the Free and Informed Consent Term, with the right to remain or withdraw from the research being safeguarded at any time, guaranteeing the right of anonymity, without causing damage or risk to them.

RESULTS

Next, in Table 1, data related to the sociodemographic variables of the elderly women participating in the research will be presented.

Ninety-six women registered in the Family Health Strategies, selected for the research, participated in this study. The age group between 60 and 70 years was predominant. The color/race variable was reported by the participants, with the black ethnicity prevailing, with 37.5%.

Regarding marital status, 39.6% are married and 39.6% are widows. Regarding education, 51.0% are illiterate. In relation to occupation, 99.0% are retired and the family income of the elderly is more concentrated in the range of 1 to 2 minimum wages, with 68.8%.

Table 2 below, shows the data related to the clinical aspect of the participants.

It is possible to verify that 38.5% of the participants are between 60 and 69 kg, with an average of 60.91 kg and standard deviation of 7.903. Regarding height, 46.9% measure between 1.50 and 1.59 meters, with an average of 1.57 and standard deviation of 0.064. After calculating the BMI, it was found that 41.7% of the elderly are eutrophic. Regarding the presence of diagnosed chronic diseases, 28.1% have Systemic Arterial Hypertension, which is the most prevalent.

Regarding the menstrual cycle of the research participants, the variables age of menarche and age of the last menstruation were considered. Most of

the participants (51.0%) went through menarche in the age group between 10 and 13 years old. Menopause, on the other hand, was more concentrated in the age group of 51 to 60 years, with 41.7%.

When asked what symptoms they experienced during menopause, 30.2% reported no symptoms; 15.5% said they felt hot flashes, known as a sudden feeling of heat. Regarding the appearance of the main symptoms after menopause, 39.6% reported that there were no symptoms, while 11.5% had weight gain and hair loss.

According to the results obtained on eating habits, it is observed that 31.3% make use of some type of vitamin or mineral supplement and that 6.3% make use of calcium and vitamin D. Another 70% stated that they do not remember which supplementation they made use of.

As for the appearance of pathologies after menopause, it is observed that 42.7% of the elderly women were affected with some type of pathology. It is also observed that osteoporosis was the most cited among them, with 32.3%.

Table 3 describes the weekly, daily and monthly frequency of consumption of the main foods that have calcium.

Regarding the consumption of foods rich in calcium, with a frequency greater than or equal to four times a week, it can be observed that the ones that prevailed with the highest percentage were beans (82.3%), whole milk powder (42.7 %) and liquid whole milk and cooked chicken breast, which obtained the same percentage (33.3%).

When analyzing Table 3, it is possible to verify that familiar and common foods in the cuisine of the Brazilian population are consumed less than three times a week, such as boiled egg, canned sardines, fried egg, black beans, cooked chicken breast and pork chop. Among those that are not consumed, almonds, tuna preserved in oil, natural yoghurt, whole natural yoghurt and skimmed milk, prevailed, with the highest percentages.

DISCUSSION

Menarche and menopause are physiological phases that mark stages in the reproductive development of women. The significant representation of elderly women who had menarche between 10 and 13 years old and menopause between 51 and 60 years old verified in the study are in agreement with other pertinent studies in the literature.⁽¹⁰⁾ Regarding the symptoms presented during menopause, studies have shown in specific evaluations that there is no severity of symptoms, since 57.3% of the answers indicate degrees of intensity that are absent or not very severe.⁽¹¹⁾

The physiological changes that occur in the woman who experiences the climacteric, even with symptoms of different intensities, generate consequences that can affect her general well-being.⁽¹²⁾ Most of the typical symptoms of menopause come from the decrease in circulating estrogen levels, the most frequent of which are vasomotor instability, menstrual disorders, psychological

symptoms, osteoporosis and cardiocirculatory changes.⁽¹³⁾

Table 1 - Characterization of the sample according to the sociodemographic data. Picos-PI. Brazil, 2017. (n=96)

Variables	F	%	Average ± SD
Age	40	41.7	71.89 ± 7.357
60 - 70			Median
70 - 80	38	39.6	71.50
80 - 90	18	18.7	
Color / race			
Black	36	37.5	
White	26	27.1	
Yellow	20	20.8	
Brown	14	14.6	
Marital status			
Married	38	39.6	
Single	7	7.3	
Widowed	38	39.6	
Divorced	1	1.0	
Stable union	12	12.5	
Education			
Illiterate	49	51.0	
Elementary School	35	36.5	
High School	12	12.5	
Occupation			
Retired	95	99.0	
Housewife	1	1.0	
Family income			Average ± SD
<1 minimum wage	1	1.0	2.29 ± 0.479
From 1 to 2 minimum wages	66	68.8	Median
> 2 to 5 minimum wages	29	30.2	2.00

* Minimum wage: R\$ 937.00 (Readjustment referring to January 2017).

* **Source:** Research data, 2017.

Table 2 - Characterization of participants according to clinical data and postmenopausal symptoms. Picos-PI. Brazil, 2017. (n=96) (continua)

Variable	F	%	Statistics
Weight			Average ± SD
40 - 49 kg	11	11.5	60.91 ± 7.903
50 - 59 kg	33	34.4	Median
60 - 69 kg	37	38.5	61.50
70 - 75 kg	15	15.6	
Height (m)			Average ± SD
1.40 - 1.49	16	16.7	1.57 ± 0.064
1.50 - 1.59	45	46.9	Median
1.60 - 1.69	35	36.5	1.58
BMI			
Eutrophic	40	41.7	
Pre-obesity	38	39.6	
Overweight	13	13.5	
Obesity	5	5.2	
Has chronic disease			
SAH	27	28.1	
SAH, osteoporosis	17	17.7	
SAH, DM	12	12.5	
SAH, DM and osteoporosis	11	11.5	
Osteoporosis	8	8.3	
SAH, DM, osteoporosis, urinary incontinence	4	4.2	
Arthralgia	2	2.1	
No disease	15	15.6	
Age of menarche			Average ± SD
10 - 13	49	51.0	10.98 ± 6.109
14 - 17	29	30.2	Median
Does not remember	18	18.8	13.00
Age of menopause			Average ± SD
38 - 40	4	4.2	39.63 ± 21.231
41 - 50	32	33.3	Median
51 - 60	40	41.7	49.00

Table 2 - Characterization of participants according to clinical data and postmenopausal symptoms. Picos-PI. Brazil, 2017. (n=96) (conclusão)

Variable	F	%	Statistics
What symptoms did you experience during menopause?			
No symptoms	29	30.2	
Hot flashes	15	15.5	
Headache and heat	7	7.3	
Insomnia and heat	3	3.1	
Tiredness, insomnia and heat	1	1.0	
Headache, palpitation and heat	1	1.0	
Tiredness, insomnia and headache	2	2.1	
Tiredness, insomnia, headache and heat	1	1.0	
Tiredness, insomnia, numbness, headache, palpitation and heat	10	10.4	
Insomnia, headache and heat	10	10.4	
Insomnia, numbness, headache and heat	9	9.4	
Insomnia, chills and heat	2	2.1	
Tiredness, numbness and palpitation	2	2.1	
Insomnia, chills, sweating and heat	2	2.1	
Tiredness, headache and heat	2	2.1	
What are the main symptoms you experienced during post-menopause?			
No symptoms	38	39.6	
Weight gain	11	11.5	
Loss of hair	11	11.5	
Anxiety	5	5.2	
Weight gain and hair loss	11	11.5	
Anxiety and depression	10	10.4	
Weight gain and anxiety	7	7.3	
Hair loss and anxiety	3	3.1	
Do you use any vitamin or mineral supplements?			
Yes	30	31.3	
No	66	66.8	
If so, what is the supplement?			
Does not remember / does not use	66	70.8	
Calcium	6	4.2	
Calcium and vitamin D	6	6.3	
Calcium and vitamin B	5	5.2	
Petivit BC	4	4.2	
Omega 3	4	4.2	
Omega 3 and calcium	2	2.1	
Vitamin B	1	1.0	
Vitamin E	1	1.0	
Magnesium	1	1.0	
Did the onset of illness occur after menopause?			
Yes	41	42.7	
No	55	57.3	
If yes, which disease			
Osteoporosis	31	32.3	
Rheumatism	2	2.1	
Osteoporosis and arthrosis	3	3.1	
Arthralgia	1	1.0	
Tuberculosis	1	1.0	
Arthrosis and osteophytosis	1	1.0	
Parkinson	1	1.0	
Stroke	1	1.0	

Source: Research data, 2017.

Table 3 - Weekly frequency of consumption of foods that contain calcium. Picos-PI. Brazil, 2017. (n = 96) (continua)

Variables	< 3x a week		≥ 4x a week		Does not consume	
	N	%	N	%	N	%
Whole milk powder	15	15.8	41	42.7	40	41.7
Liquid whole milk	23	24.0	32	33.3	41	42.7
Skim milk powder	9	9.4	6	6.3	81	84.4
Liquid skim milk	14	14.6	5	5.2	77	80.2
Whole natural yogurt	16	16.7	3	3.1	77	80.2
Skim natural yogurt	12	12.5	2	2.1	81	84.4
Flavored whole yogurt	45	46.9	19	19.8	32	33.3
Mozzarella cheese	47	49.0	2	2.1	47	49.0
Boiled egg	74	77.1	9	9.4	13	13.5
Fried egg	65	67.7	3	3.1	28	29.2
Canned sardines	67	69.8	4	4.2	25	26.0

Canned tuna in oil 9 9.4 87 90.6

Table 3 - Weekly frequency of consumption of foods that contain calcium. Picos-PI. Brazil, 2017. (n = 96) (conclusão)

Variables	< 3x a week		≥ 4x a week		Does not consume	
	N	%	N	%	N	%
Cooked chicken breast	54	56.3	32	33.3	10	10.4
Fried pork chop	55	57.3			41	42.7
Beans	11	11.5	79	82.3	6	6.3
Black beans	54	56.3	9	9.4	33	34.4
Cashew nuts	49	51.0			47	49.0
Almonds	3	3.1			93	96.9

Source: Research data, 2017.

This study showed the presence of calcium replacement and the supplementation of some vitamin or mineral. Nowadays, there is a high number of people with vitamin D deficiency, which may be the result of limited exposure to the sun, aging and malabsorption syndromes, use of sunscreens and clothing with little exposure, as well as from a low dietary intake of this product.⁽¹⁴⁾

Vitamin D insufficiency is a worldwide problem, with unfavorable consequences especially for elderly women. Global evidence has shown a considerable prevalence of vitamin D deficiency among North American, European and Asian populations. Other studies have already evaluated vitamin deficiency in the world population and its possible impacts on health.⁽¹⁵⁾

It is worth mentioning that most of the vitamin D is synthesized by the skin after exposure to ultraviolet B light, and food supplies about 10 to 20% of the daily requirement of vitamin D. In this sense, hypovitaminosis D can be explained by the lower exposure of certain populations to UVB radiation, a diet low in foods that are a source of the mineral, or a reduction in its bioavailability.⁽¹⁶⁾ It is of paramount importance that the elderly who do not consume or who consume foods that are sources of vitamin D and calcium infrequently, receive guidance on the need for their consumption.⁽¹⁷⁾

It is important to emphasize that regular physical activity also contributes to the preservation of joint mobility and muscle strengthening, improving motor coordination. In addition, it increases bone mineral density, improves respiratory capacity and lipid profile, decreases resting heart rate and body fat, in addition to normalizing blood pressure, thus contributing to a lower incidence of bone and cardiovascular comorbidities. In addition, the practice of regular physical activity, combined with a healthy and balanced diet, directly influences the delay of the onset of diseases.⁽¹⁸⁾

With regard to the dietary profile, studies that address the assessment of the nutritional status of elderly women showed that 75% of the participants consume milk and dairy products daily, thus resembling the present study, where the participants regularly consume milk, more than four times a week.⁽¹⁹⁾ Women who consume milk and its derivatives ingest more calcium than those who do not make use of it.

They are presented by a healthy eating habit, that is, which contains a high intake of vegetables, fruits, nuts, olive oil, legumes and fish, and reduced in red meat, refined carbohydrates and dairy products with

a high fat content. However, a diet with such characteristics is costly, especially for the low-income classes, and in the urban environment, where everything or almost everything needs to be purchased. In addition, the most accessible foods and products, in general, tend to be refined and ultra-processed, which are also destructive to health.⁽²⁰⁻²¹⁾

Studies on the dietary pattern of women in the climacteric have been assuming significant importance, since this phase comprises a relatively long period of the woman's life and the adopted diet has a great impact. The knowledge of the eating habits of women in this phase can have important implications for public health in the correct directing of disease prevention and treatment actions, mainly in the formulation of nutritional education guidelines and interventions, aiming to contribute to the proposal of measures that alleviate the grievances of this period.⁽⁸⁾

The Reference Dietary Intake (RDI) has the necessary dietary amounts recommended for each nutrient, according to the average daily intake which would be sufficient to meet the nutritional needs of the vast majority of healthy individuals. Thus, when observing the RDI, it can be seen that the recommended daily intake of calcium for women from 51 years of age is 1000 mg/d. With regard to vitamin D, it is recommended that there be an intake of 10 µg/day that vitamin, in females, with this value being a constant in all age groups.⁽²²⁾

It is important to avoid foods that are difficult to digest, with a higher content of lipids, which have many additives and processed foods, heavy meals at night, alcoholic beverages and chocolates, because they are stimulants. Every caloric food increases the heat in the body.⁽¹²⁾

Health professionals must know and always seek new information about the elderly's nutritional routine, in order to identify inappropriate eating patterns and lifestyle habits.

In order to carry out the study, there were some limitations, such as the difficulty in locating some households and the unavailability of some community health agents. Another difficulty encountered was the low level of education of most of the interviewed participants, making the data collection procedure more difficult.

It is expected that the results obtained will contribute to expand the knowledge of health professionals and students in the area, thus providing the development of other studies that serve as guidance and implementation of actions and policies in the context of nutritional health of the elderly,

meeting expectations and the needs of the participants through the implementation of strategies that contemplate the activities required to improve the quality of life of this population group.

CONCLUSION

This study achieved its main objective of investigating the clinical symptoms and eating habits of postmenopausal elderly women. All the symptoms investigated by the study during menopause and postmenopause were mentioned by the participants, highlighting the most common ones, such as hot flashes in menopause and weight gain in postmenopause.

The presence of calcium in the participants' diet was considered satisfactory, since it was possible to notice that a portion of the mineral was ingested daily and that foods rich in calcium are present in the daily menu of the women studied, indispensable in the elderly.

It is important to evaluate each elderly woman individually, because after knowing their particularities, counseling aimed at their specific reality becomes possible. Primary care is the appropriate level of care to meet most of the health needs of women in the climacteric and it is necessary that the network is organized to offer adequate care.

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