ABSTRACT: The present study aimed to identify, based on reports, signs, symptoms and problems that affect the health of women in the climacteric period who are serving time in prison. Exploratory and descriptive study with a qualitative approach. Seven climacteric women incarcerated in a female prison in the State of Rio de Janeiro, Brazil, were interviewed from October 2014 to January 2015. After thematic analysis, two categories were identified: Symptoms related to the climacteric period and Problems that affect the health of women deprived of their liberty. Most interviewees reported feeling uncomfortable in the climacteric period and having health problems in prison. Thus, climacteric, especially in situations of deprivation of liberty, should deserve greater attention of public health policies, to contribute to the improvement of the living conditions of this specific group.

DESCRIPTORS: Women; Prisons; Women’s health; Climacteric; Nursing.
INTRODUCTION

Women suffer physical and mental changes that affect health from adolescence to old age. Throughout life, there are constant emotional, physical and social changes that significantly interfere with the health process and life styles of the individuals. Due to changes in the world and Brazil's demographic profile, there is a growing number of studies focused on older women, due to the significant changes experienced by this population.

In Brazil, there is a trend of feminization of older people. Based on the census of 2010, of the total Brazilian population (190,755,199 million), 97 million are women (51%) and 93 million (49%) are men.

The number of elderly (people aged 60 or older) that was approximately 15 million in 2000 is estimated to exceed 30 million people in 2020, totaling 13% of the population, and by 2060 the elderly population is estimated to exceed 33.7%. Moreover, according to the Brazilian Geography and Statistics Institute (IBGE), the elderly population will be greater than that of children 14 years of age, in 2030. In view of the progressive increase in life expectancy of women since the second half of the twentieth century, there is an increase in the number of women who live long enough to reach the climacteric period.

According to the World Health Organization (WHO), climacteric is defined as a biological phase of life (a passage from the reproductive to the non-reproductive phase), and not a pathological process. Menopause is a landmark of climacteric, corresponding to the last menstrual cycle only recognized after 12 months of its occurrence.

The changes that occur in the climacteric period are influenced by several factors, ranging from altered hormone levels to the way in which these women experience this stage of life. Thus, in addition to the physiological issues, social and cultural aspects, living conditions and low levels of estrogen, which interfere in the climacteric period, also deserve attention. Or else, factors such as eating habits, physical activity, leisure, attitude towards life, sexuality, income, professional and religious aspects, among others should also be considered.

Health care strategies during the climacteric period should be incorporated by Brazil's Unified Health System (SUS), in its various specificities, concerning the different groups of women, since women with mental disorders, street dwellers, sex workers, or women confined in institutions such as psychiatric hospitals, convents and prisons, may suffer discrimination and prejudice, which affect their health, contributing to increase the vulnerability of these groups.

Therefore, the National Policy for Integral Health Care of Persons Deprived of Liberty in the Prison System (PNAISP) was created in Brazil, in 2014, to ensure compliance with the guidelines of the SUS. Also, a more specific policy - the National Policy on Care to Incarcerated Women and Women Discharged from Prison (PNAMPE) was drawn.

Thus, considering specific characteristics of the prison system such as isolation, overcrowding, invasion of privacy, vulnerability, spread of diseases and situations of violence, we stress the importance of special care targeted to the health needs of this specific group – climacteric women in the prison system.

Given the many problems affecting the health of women deprived of their liberty, especially during the climacteric period, it is worth mentioning the following questions: What are the common climacteric signs and symptoms reported by women deprived of their liberty? What are the health problems reported by these women during the climacteric period in a penitentiary?

Thus, the present study aimed to identify signs, symptoms and problems that affect the health of climacteric women in the prison system, based on their reports.

METHOD

This is a descriptive and exploratory study with a qualitative approach, aimed to incorporate the issue of meaning and intentionality, avoiding generalizations and rather focused on in-depth understanding
of the implications of the statements of the subjects\textsuperscript{(11)}.

This study was part of a thematic project titled “Women’s Health in a Penitentiary in the State of Rio de Janeiro”, of the Research Group: Maternity: Women’s and Children’s Health, with 40 women randomly selected from an official list of inmates of the investigated institution. The study was conducted from October 2014 to January 2015, in a penitentiary managed by the Secretaria de Administração Penitenciária do Rio de Janeiro (SEAP-RJ), exclusively for women.

According to Resolution No. 466, of December 12, 2012 of the Brazil’s National Health Council (CNS) \textsuperscript{(12)}, which regulates research involving human subjects, the study was approved in June 2014 by the Research Ethics Committee of Universidade Federal Fluminense (UFF), under no. 696.795/14 and by the Secretaria de Administração Penitenciária do Rio de Janeiro (SEAP-RJ), under no E-2108753/2014.

Free and Informed Consent Form (TCLE) was not allowed to be signed by SEAP-RJ, since the referred institution does not provide information about their inmates, nor authorizes any recording of such information in documents other than the official documents of the institution. SEAP is the state agency that authorizes and is responsible for the participation of prisoners in studies.

Of the 40 inmates who participated in the thematic project, seven women over 35 years old, in the climacteric period and who agreed to participate in the study composed the sample.

The following inclusion criteria were considered: women who reported being in the climacteric period, receiving or not receiving drug treatment specific for menopausal or climacteric disorders, and who have been in jail for more than six months. The exclusion criteria were women who have been in prison for less than six months at the time of the survey, whose participation in the study was not authorized by the institution.

Participation was voluntary through individual and reserved semi-structured interviews conducted in a location previously determined by the correctional authority present in the institution. Prior to the interviews, each woman was informed on the objectives of the study.

As the use of digital resources was not authorized by SEAP at the time of the interviews, the answers were transcribed concomitantly by the researcher, who then read the transcript out loud to be confirmed by the respondent. Although the signing of free informed consent forms (TCLE) was not allowed, anonymity procedures were guaranteed, and identity confidentiality was preserved with the use of alphanumeric characters (M1 to M7) for the identification of the respondents.

A semi-structured interview guide was a useful tool in the identification of the signs, symptoms and problems related to the health of climacteric women in prison.

The results were analyzed using thematic analysis\textsuperscript{(13)}, i.e., a set of analysis techniques of communications designed to obtain indicators that allow the inference of knowledge related to the production of information, through objective and systematic procedures. This technique presupposes some steps, as follows: pre-analysis; material exploration or coding; processing and interpretation of results, inference and interpretation\textsuperscript{(13)}. As a result of the analysis process, two thematic categories were elaborated. The first concerns the “Symptoms of the climacteric period” and the second “Problems affecting the health of climacteric women in prison”.

One limitation of the research process it the need to restrict the time of data collection to meet the deadlines stipulated by SEAP-RJ, as well as the fact that researchers should undergo a close scrutiny of their most intimate parts to be allowed to enter the prison system to conduct the interviews.

\textbf{RESULTS}

The age range of the women who participated in the study ranged from 50 to 66 years. Regarding the self-declared skin color, four women declared themselves white and three brown. As for marital status, five said they were divorced/separated and one was a widow. All of them reported having children. Regarding schooling, three of them said they were illiterate, one of whom could read, but could not write, and another had completed higher education.
Concerning the crime committed, three said they were arrested for drug trafficking, three for fraud and one for homicide. As for the sentence length, it ranged from 67 years (the longest period) to five years (the shortest period). As for the time served, the longest period was 20 years and the lowest was a year and two months.

Symptoms related to the climacteric period

Of the seven women interviewed, all said they no longer menstruated. Respondent M4 said that her last menstrual period occurred when she was 27 and M6 was the oldest inmate to enter menopause, aged 57 years. They also said they were not able to perceive the changes associated to the climacteric period. During the interview, the respondents shared significant information on signs, symptoms or health problems directly or indirectly related to the climacteric period. Some statements follow:

- I have an unpleasant feeling of warmth, so I always turn on the fan and have a cool shower. (M3)
- I am experiencing hair loss, brittle nails, backache and headache. (M4)
- I feel back pain and headache. (M6)
- I sing to feel better. (M5)

Most respondents reported that the climacteric period in prison has been uncomfortable. In fact, signs, symptoms, or problems associated to this period have interfered in their daily lives in prison.

Problems that affect the health of climacteric women in prison

Some typical signs of the climacteric period also interfere in the daily life of women in prison, which were highlighted in the interviews. There were, for example, reports on worry, sadness, tiredness, altered sleep pattern, stressing the great impact of the prison environment on their lives, especially during the climacteric period.

- I have been suffering terrible insomnia here. (M4)
- I wake up several times during the night, frightened ... I worry about my family and have difficulty getting asleep. (M6)

In addition to these disorders, one of the most frequently reported health problems is hypertension. It can be related to the advanced age of the subjects or their lifestyle, as well as to institutional factors. Here are some testimonials:

- I am hypertensive and have a heart problem. (M7)
- I am hypertensive, I experience weakness, headaches and forgetfulness. (M4)

One possible correlated factor, weight gain after confinement, appears in the statements of five interviewees. This issue can be exemplified from the following statement:

- I gained 15 kg after confinement, I put on a lot of weight here. (M4)
- I do not weigh myself, but I am fat and my pants are too tight. (M5)

Other problems reported in some interviews that can be related to the climacteric are chronic non-communicable diseases (CNCD) such as diabetes, herniated disc, osteoarthritis, asthma and cataracts. They appear in the following statements:

- I have emphysema. I went to the doctor and I get the medicine at the ward, when it is available. I was never examined by another professional and would like to know why I suffer from excessive sweating and have never been treated for this disorder. (M7)
- I only have diabetes, hypertension and vision problems. (M2)
DISCUSSION

The analyzes carried out considered the frequency of appearance of the variables in the interviews. Among the various signs, symptoms and problems or factors that impact health associated with the climacteric period in prison unpleasant warmth, sweating and worry prevail.

According to the literature, these signs and symptoms can be exacerbated by hormonal changes experienced by women because these hormonal disorders frequently cause deep sadness and mood swings\(^{14}\).

These mood swings may be related to the processes of psychological distress. Of the seven respondents, two reported having used the mental health service before their arrest, two were monitored by the Psychosocial Support Center (CAPS) and two had been previously admitted to a psychiatric hospital. Such data is of paramount importance since the climacteric period increases the probability of psychological distress\(^{13}\), and consequently, of mental disorders common in prisons\(^{10}\).

Still regarding the factors that influence the health of this population group, issues related to worry, fatigue, stress and abnormal sleep pattern were also reported in some statements. These factors may be related to low serotonin levels and hypoestrogenism. Hot flashes, sweating and atrophic vaginitis are the only symptoms characterized as consequences of estrogen deprivation\(^{15}\).

In addition to the above-mentioned symptoms, heat waves or “hot flashes”, abundant sweating and restless sleep were also identified during the climacteric period. “Nervousness” and “hot flashes” were very frequently mentioned by climacteric women, and some of these complaints are interrelated\(^{15}\). Therefore, the results are consistent with the reviewed literature, according to which 92.07% of the women experienced at least one of the symptoms, especially hot flashes, irritability and forgetfulness\(^{16}\).

We emphasize that incarcerated women are limited in their actions and rights to free access to institutional spaces. Thus, as a result of these limitations, in addition to their biological changes, these women also face emotional disorders, becoming vulnerable to the occurrence of other morbidities.

Other less frequently mentioned signs and symptoms were forgetfulness, low self-esteem, melancholy, depression, mastalgia, low libido, urinary incontinence and vaginal dryness. The former symptoms may characterize daily changes somehow related to specific mental health problems. Vaginal dryness and/or atrophy are the signs most related to the climacteric period.

Thus, symptoms related to depression, for example, were prevalent among the respondents, confirming that climacteric transition has great impact on life\(^{16}\). Regarding vaginal dryness, more frequent four to six years after menopause, it is directly related to estrogen deprivation\(^{15}\).

Regarding the prison system, it can be inferred that women have difficulties in maintaining normal pressure levels, since in addition to their individual eating habits, the fact they are in a prison prevents these women from maintaining a healthy/balanced diet, as well as from practicing frequent and well-oriented physical activity.

There is a growing concern for physical and leisure activities for persons serving time in prison\(^{17}\). However, physical activity is still uncommon in the prison system\(^{18}\).

Moreover, the climacteric period may also favor increase in the relative weight and fat abdominal distribution because life in prison creates difficulties related to food and physical inactivity\(^{18}\).

The symptoms of dyspnea, low back pain/neck pain and insomnia are also prevalent disorders reported by the group. Among the many factors that may affect the health of women deprived of their liberty, abnormal sleep and rest patterns were mentioned by six respondents, referred to as the presence of “insomnia”. It is known that this condition, characterized by difficulty getting asleep, is aggravated during perimenopause affecting the health of this specific group of women\(^{19}\).

Thus, insomnia is often attributed to heat waves, but may also be associated with psychological and/or environmental symptoms\(^{15}\). In the prison system sleep-wake schedules are imposed by the institutional routine and usually differ from the personal habits of the inmates. So, especially in adverse situations such as being a prisoner, the insomnia referred by these women can be aggravated.
However, since the referred problems occur in other periods of life, further studies that show their correlation with climacteric are needed. Nevertheless, it should be stressed that considering themultiple structural/institutional factors that characterize the prison systems, when inmates are released after serving their entire term in prison they are rarely in good health conditions.

**FINAL CONSIDERATIONS**

Climacteric women deprived of liberty face symptoms and problems that affect their health during confinement, and have to face daily barriers and institutional impositions. Questioned about how they experience this period, this vulnerable female group recognized the difficulties experienced during the climacteric, particularly because they are also deprived of liberty. Most respondents reported discomfort during the climacteric period.

Following the identification of these issues related to the life conditions of this population, it is recommended that nurses and the multiprofessional health team provide more humanized care to these women, encourage self-care actions, prevent illnesses, treat diseases and promote their health in order to minimize uncomfortable situations and contribute to improving their living conditions during incarceration.

Thus, climacteric, especially in specific situations such as imprisonment, should be explored in greater depth by public health policies, contributing to the improvement of the living conditions of this population.

**REFERENCES**


