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ORIGINAL ARTICLE

COVID-19: Climacteric Symptomatology and Quality of Life

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Abstract

Objective: The aim of the stusy is to identify climacteric symptoms and self-care attitudes and their relationship with the quality of life reported by women during the coronavirus disease 2019 pandemic.

Method: This is a cross-sectional study, carried out between May 2020 and September 2020. The Women's Health Questionnaire, the Menopause Rating Scale instruments, the translated and validated versions for Brazilian Portuguese, and a semi-structured interview script for sociodemographic information were used. To answer the survey, the Google Forms link was made available through digital platforms. The sample consisted of 280 women.

Results: As for Women's Health Questionnaire, it was observed that women showed impairment, mainly in relation to the domains of somatic symptoms, sexual behavior, vasomotor symptoms, memory/concentration, and psychological symptoms. The correlation between the results of the Menopause Rating Scale and the Women's Health Questionnaire identified that the overall severity of symptoms measured by the Menopause Rating Scale was associated with a reduction in the Women's Health Questionnaire in all domains, except in the attractiveness domain. The main self-care actions indicated were taking shower, using teas, relaxing, using lubricants, and using medications.

Conclusion: The climacteric symptoms that impacted the quality of life of women were related to the domains of somatic symptoms, sexual behavior, vasomotor, and memory/concentration. There was also a decline in the quality of life with impairment of the psychological domain. Self-care actions such as taking showers, using teas, medications, and lubricants were the most used.

Keywords: Climacteric, COVID-19 pandemic, menopause, self-care

Introduction

In 2021, according to the United Nations data, the world population is composed of 7.8 billion inhabitants (World Population Prospects, 2019). In 2019, the number of women had already surpassed the mark of 3.8 million (The World Bank, 2019). Similarly, Brazil follows this same global logic with the women representing 51.12% of the whole population (IBGE, 2021). Considering the global trend of increased life expectancy (IBGE, 2021), the relevance of studying the menopause symptomatology and its impact on the quality of life of this public is observed, once it provides information about the well-being of a vulnerable population to health problems, almost always neglected by the care provided in the health services (Hemann et al., 2018).

Climacteric is considered an evolutionary stage of life that results from the drop in hormone levels, with symptoms such as hot flashes, sweating, chills, insomnia, and anxiety, among others, which cause suffering in this population, and due to these negative impacts on the quality of life, it has been a topic discussed and studied (Arruda et al., 2018). The relationship between health and the quality of life was established by the World Health Organization (WHO) in 1948, meaning a state of complete physical, mental, and social well-being and not merely the absence of disease, defined as the self-perception of one's position in the context of culture and value system in relation to its goals, expectations, standards, and concerns (WHOQOL, 1995). The term quality of life is related to dietary factors, leisure, working conditions, housing, education, income, social and family relationships, self-esteem, and the environment (Hemann et al., 2018).

Many factors related to the quality of life were changed with the arrival of the new coronavirus, called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), that causes the coronavirus disease 2019 (COVID-19), which was detected on December 31, 2019, in Wuhan, China. On January 9, 2020, the

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WHO confirmed the circulation of the new COVID-19 (Lana et al., 2020). On January 16, the first import into Japanese territory was notified. On January 23, Brazil registered its first case. On January 30, the WHO declared the epidemic an international emergency, and the main attitude of global control was social isolation to prevent its spread (PHEIC, 2020).

It is noticed how important, complex, and relevant is to study the quality of life in times of social isolation, especially in climacteric women, who are, almost always, neglected by the care provided in the health services. In this context, this study aimed to identify the symptoms of menopause and self-care attitudes and their relationship with the quality of life reported by women during the COVID-19 pandemic.

Material and Methods

This is a cross-sectional study carried out between May 2020 and September 2020.

In the study, 280 women were included, all in the perimenopause and postmenopause period, aged between 40 years and 65 years, menstrual irregularity in the last 12 months, or amenorrhea from 2 months to 12 months; suffering any of the following symptoms—hot flashes, sweating, insomnia, migraine, irritability, vaginal dryness, and dyspareunia; at least three episodes of hot flashes (hot flashes) a day.

To answer the survey, the Google Forms link was made available to all servers at the Federal University of Sergipe, through institutional e-mail and the population in general, through digital platforms (Whatsaap, Instagram, and Facebook).

For the collection of sociodemographic and clinical data, a semi-structured interview script developed by the authors was used, divided into three sections, covering age (at the time of the interview, in full years), marital status (with or without a partner), education (according to referred by the woman and according to the classification of the Critério Brasil (2019)) (Critério Brasil, 2019), as well as social class, color/race (self-declared as White, Brown, Black, Yellow, and indigenous) (Brasil, 2017), and the clinical aspects described in the inclusion and exclusion criteria.

The Menopause Rating Scale (MRS) (Heinemann et al., 2003) and the Women's Health Questionnaire (WHQ) (Filho et al., 2005) were also applied, in the translated and validated versions for Brazilian Portuguese. Both instruments are recommended and used in studies with the same purposes of this study in order to establish consistent parameters for the analysis of results (Heinemann et al., 2004).

The WHQ aims to assess nine domains related to physical and emotional health through 36 items. The WHQ shows a variety of physical aspects and emotional symptoms, and the subscales reflect a relatively independent symptom breakdown. The questionnaire is scored on a four-point scale (1=yes, definitely, 2=yes, sometimes, 3=no, not much, and 4=no, not at all), and these are reduced to binary options (0/1) and the subscale items are summed and divided by the number of items in each subscale. The higher the score, the more pronounced the suffering and dysfunction. The menstrual and sexual domains should be scored separately because they may not be applied to all the participants, for example, in postmenopausal women or those who are currently not sexually active (Martins et al., 2009). The 36 questions present in the scale were applied in the questionnaire in the form of questions where the participants marked the symptom presented as 1 (yes, definitely), 2 (yes, sometimes), 3 (no, rarely), and 4 (no, absolutely). Therefore, by being reduced to a binary scale, the women who answered 1 (yes, definitely) and 2 (yes, sometimes) were classified as having symptoms of menopause (1) and those who answered 3 (no, rarely) and 4 (no, absolutely) were classified as having no climacteric symptoms (0). In addition, the questions had other open questions in which women who had symptoms could report what they did to relieve it.

The MRS is composed of three domains, where the total MRS score is obtained by summing the score of each domain. So, the higher the score obtained, the more severe the symptoms and the worse the quality of life. In this way, the MRS can have a maximum score of 44 points. The general intensity of the referred climacteric symptomatology can be further categorized according to the severity of the climacteric symptoms that make up each domain of the MRS into absent or occasional symptomatology (0–4 points), mild (5–8 points), moderate (9–15 points), or severe (≥16 points) (Heinemann et al., 2004). The 11 questions present in the scale were applied in the questionnaire in the form of questions where the participants marked the intensity of the presented symptom as 0 (no symptoms), 1 (slight), 2 (moderate), 3 (severe), and 4 (very severe).

Data were compiled in Microsoft Office Excel version 2016. In the descriptive analysis of the data, the frequencies and percentages of qualitative variables (sociodemographic variables and the MRS score classification) and median and interquartile range of quantitative variables (scores) were computed by the WHQ.

Subsequently, in the inferential analysis, the relationship between the MRS classification and the sociodemographic variables was verified using the chi-square or Fisher's Exact tests, and the relationship between the WHQ scores with the sociodemographic variables and the MRS classification was performed using Mann–Whitney and Kruskal–Wallis tests. The software used was R, version 4.0.0, and the significance level adopted in all hypothesis tests was 5%.

Main Points

- Analysis of the behavior of climacteric women during the isolation caused by the covid-19 pandemic.
- The study behind subsidies to prepare the climatic population for future moments of social seclusion.
- Quality of life was affected during the period of social isolation to which climacteric women were subjected.

The study was complied with resolution number No. 466/2012 and was sent to the Research Ethics Committee of the Federal University of Sergipe (CEP/UFS), through Plataforma Brasil, after the approval by the Municipal Health Department of Aracaju. Only after approval by the aforementioned committee under opinion: 4.023,073. To participate in the research, it was necessary to be inserted within the criteria and accept to participate by confirming the Free and Informed Term (FIT).

Results

The sample consisted of 280 women in the climacteric phase, aged between 40 years and 65 years, and most women were aged less than or equal to 49 years (50.71%), were Brown (47.64 %), belong to social class B (57.86%), were in a stable union (69.53%), had completed higher education (80.29%), had no regular menstruation (66.43%), and had no menstrual flow in the last year (54.72%).

The flow adapted from the consort (Figure 1) demonstrates the behavior of the sample according to those included and excluded from the collection.

As for Health And Quality Of Life Outcomes (HRQOL), it is known that the higher the median, which ranges from 0 to 1, the worse the quality of life of this woman. Thus, the data suggest that women had worse quality of life, especially in relation to the domains of somatic symptoms, sexual function, vasomotor symptoms, and memory/concentration (Table 1).

The women in the sample who used herbal medicine to relieve climacteric symptoms were among the highest percentages according to the MRS classification and had moderate and severe as well as the worst quality of life indices compared to those who did not indicate interest in the use of herbal medicine.

Regarding age, the age group between 50 years and 59 years reported suffering some of the climacteric symptoms, and the somatovegetative domain (79.49%) stands out in relation to the other categories. In addition, women who reported having menstruated once or more a year had a higher percentage classified as asymptomatic (MRS).

For marital status, in relation to the urogenital domain, the highest percentage (18.82%) of asymptomatic women is observed among women who live without a partner.

The data presented in Table 2 demonstrate that in the investigated population, moderate and severe symptoms had a higher mean prevalence when compared to asymptomatic and mild symptoms.

As for self-care actions, women were asked to report the actions they took to alleviate the discomfort. Despite referring to the presence of climacteric symptoms, those investigated do not do anything about self-care actions. However, some words stand out in relation to vaginal dryness, such as the use of lubricants (14.64%), in relation to irritability, such as relaxing (5.36%), in relation to sleep problems, such as the use of sleeping pills (7.56%) and use of teas (12.14%), and

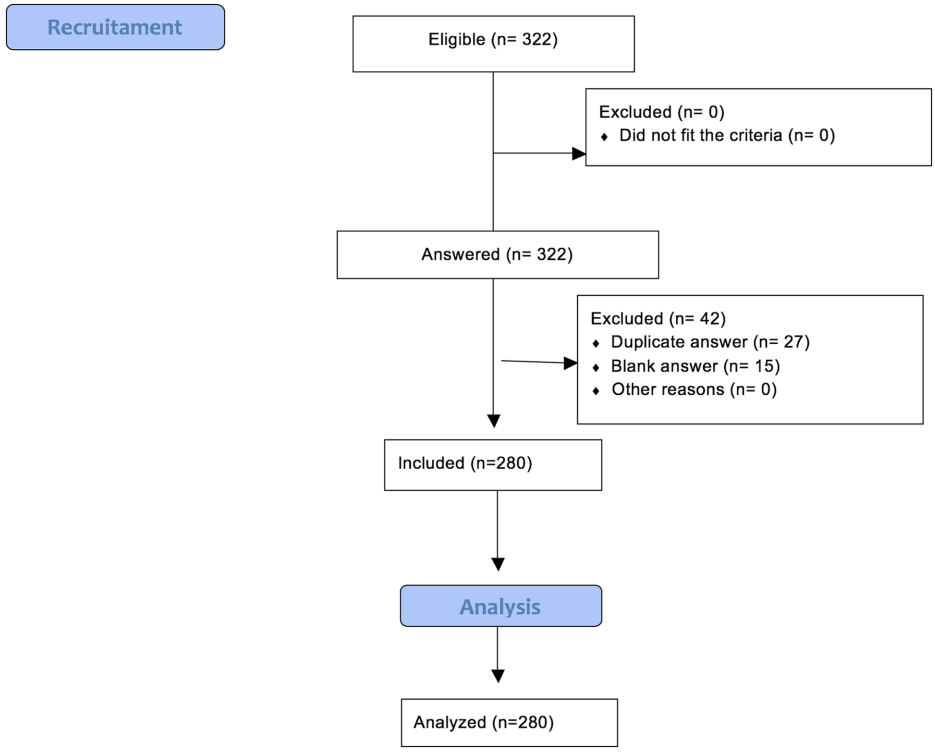

Figure 1.
Flow of research subjects.

Table 1.
Health-Related Quality of Life of Climacteric Women According to the Domains of the Woman's Health Questionaire, May/Sep 2020

Domains	Median	Interquartile Range
Depressed mood	.29	.29
Somatic symptoms	.57	.43
Anxiety—fears	.25	.50
Vasomotor symptoms	.50	.50
Sleep problems	.33	.67
Sexual function	.67	.33
Menstrual symptoms	.25	.25
Memory/concentration	.67	.67
Attraction	.33	.33

in relation to shortness of breath, sweating and hot baths (13.21%).

From the correlation between the results of the MRS scale and the total WHQ, it was identified that the general severity of symptoms measured by the MRS scale was associated with a reduction in HRQoL (WHQ) in all domains (p =.000), except in the domain attractiveness, whose relation with the somato-vegetative symptoms (p =.104), psychological (p =.007) and urogenital (p =.091) was not significant. After analyzing the results considered as moderate and severe according to MRS, it was observed that the quality of the life was compromised in the WHQ domains, thus confirming the relationship between the scales, with emphasis on the vegetative somatic domain, which reached the worst value quality of life in relation to vasomotor symptoms, psychological domain and urogenital in somatic symptoms, the impact on quality of life was observed with a median of 0.71.

Table 2.
Classification of Climacteric Symptoms According to the MRS Scale by Domain, May/Sep 2022

Variable	Category	Frequency	%
Somatovegetative symptoms	Asymptomatic	102	36.43
	Light	68	24.29
	Moderate	87	31.07
	Severe	23	8.21
Psychological symptoms	Asymptomatic	54	19.29
	Light	74	26.43
	Moderate	75	26.79
	Severe	77	27.50
Urogenital symptoms	Asymptomatic	66	23.57
	Light	36	12.86
	Moderate	79	28.21
	Severe	99	35.36
Total	Asymptomatic	52	18.57
	Light	60	21.43
	Moderate	103	36.79
	Severe	65	23.21

Discussion

The present study evaluated the quality of life of women in the presence of climacteric symptoms during the COVID-19 pandemic, as well as the self-care actions to alleviate these symptoms. The quality of life of the women surveyed, based on the WHQ and the MRS, was compromised.

Corroborating this result, a study carried out with 37 women who used the MRS showed that the women who were evaluated presented severe symptoms during menopause (Andrade et al., 2019).

The domains that were most compromised in our study were somatic symptoms, sexual function, vasomotor symptoms, and memory/concentration. National (Freitas et al., 2017; Fonseca, 2018) and international cross-sectional studies conducted in Nepal, Mayo Clinic, Rochester, and Colombia (Fernanda et al., 2018) presented similar results demonstrating that climacteric symptoms cause impairment of HRQOL.

In this study, women aged 50–59 years had the worst quality of life scores in the somatic domain. This finding coincides with the research carried out by Czarnecka-Iwańczuk et al., in which women who presented with somatic symptoms had the worst quality of life. Furthermore, the authors Shyu et al. (2012) and Czarnecka-Iwaczuk et al. (2012) highlight that entering the climacteric period increases the probability of a decrease in the quality of life.

As for vasomotor symptoms, hot flashes also seem to be highly prevalent in climacteric populations (Curta & Weissheimerb, 2019; Sturdee et al., 2017) which reaffirms our findings, where vasomotor symptoms were significant (p =.000) in all domains of the MRS. Clinically, heat waves resemble a heat dissipation response, which usually occurs in the trunk and face resulting from an imbalance in thermoregulatory processes (Sturdee et al., 2017). It is known that hot flashes may be responsible for the increase in nighttime awakening episodes and for the reduction in sleep (Berlezi et al., 2013).

Sleep disorders were mentioned by the women in the research, as well as 67% of the sample of 819 climacteric women registered in the 73 units of the ESF in Montes Claros, Minas Gerais (Lima et al., 2019). It is observed that a study carried out with 849 climacteric women, in Minas Gerais, showed that the highest intensity predictors in the vasomotor, psychosocial, and sexual domains were women with severe climacteric symptoms and who presented sleep quality disorders (Souza et al., 2019). Realizing that one symptom can induce the appearance of another, and further, compromise the quality of life of these women.

Sexual dysfunction in women can appear in the climacteric phase and worsens with age, so it is estimated that millions of women experience this sexual dysfunction and report decreased vaginal lubrication, pain and discomfort with sexual intercourse, and decreased arousal (La Rosa et al., 2019). During the research regarding the psychological and

urogenital domains, it was observed that moderate and severe symptoms had a higher mean prevalence when compared to asymptomatic and mild symptoms concluding that the climacteric has a direct impact on a woman's sexual life (Santos et al., 2016a).

A similar result was found in a study in which the analysis of the two instruments used in the study to assess the quality of life of climacteric women showed that the dimensions involving social relationships (WHOQOL) and urogenital symptoms (MRS) are the most affected, representing the worst scores, 59.9 and 4.1, respectively. (Andrade et al., 2019)

A study carried out with 330 women in the climacteric phase, users of the Family Health Strategy (FHS) in the city of Cajazeiras, in which the majority had a steady partner, showed through the results that 194 of the 214 women with active sexual life presented complaints during the sexual act, being dyspareunia the most frequent complaint, followed by reduced lubrication (Jesus et al., 2019). Corroborating these data, in relation to the marital status, although not statistically significant, the studied population showed a worse QOL in the urogenital domain in women who had a partner when compared to those who did not.

This study showed a strong association between the scales applied (MRS and WQH), confirming that climacteric symptoms negatively impact HRQOL, especially among women who had their symptoms classified between moderate and severe, who had the worst levels of quality of life when compared to the other classifications. In addition, the MRS scale, despite having a smaller number of questions, showed total effectiveness in the results of the symptoms of women in menopause, when compared to the WHQ, thus suggesting that this scale be included in the consultation of women in menopause.

A study conducted in 2019 revealed that symptoms associated with aging, stress, depression, genital atrophy, vasomotor disorders, urinary incontinence, and sleep disorders are more strongly related to reduced levels of quality of life (La Rosa et al., 2019). Psychosocial and lifestyle-related factors are associated with an increase in these complaints, especially if associated with social isolation, fear, and insecurity about the pandemic (Santos et al., 2016b).

According to Jesus et al. (2019), there was an increase in symptomatological involvement in the domain referring to psychological complaints, while the domain of urogenital symptoms was the only one that showed a reduction when comparing the pre-pandemic period to the current global scenario (Jesus et al., 2019).

The literature shows that most studies associate a low level of education with a high intensity of climacteric symptoms and a low level of HRQoL (Almeida et al., 2016). However, in this study, with a sample of approximately 80% of women with higher education, these presented compromised quality of life.

In addition, self-care itself is influenced by education (Jesus et al., 2019). Studies associate lack of knowledge and low education level with reduced quality of life and increase in climacteric symptoms (Almeida et al., 2016). However, despite the literature stating that the higher the level of education, the greater the care and the lower the intensity of the symptoms of menopause in the studied population, most had higher education, and there was no influence on self-care for symptom relief, disagreeing with the literature.

However, those women who resorted to self-care actions highlighted the symptoms presented: hot flashes, sweating, insomnia, irritability, and discomfort during sexual intercourse. The most common actions were sleeping or being in an air conditioner, fan, water, tea, relaxing, taking a deep breath, using lubricant, and medication. Similar results occurred in a survey conducted in Malaysia, which showed that seven different self-care actions were reported, and the most common actions were sleeping or being in an environment with air conditioning or a ceiling or wall fan, bath (Santos et al., 2016b).

An interesting observation in the analysis of our results is relation to the severity of climacteric symptoms experienced by women with the coincident outbreak of SARS-CoV-2. It was observed that the greatest impairment of quality of life concerns to the psychological, vegetative somato, vasomotor, and urogenital domains. That said, it is suggested that social isolation, a measure imposed by health authorities with the aim of mitigating the spread of SARS-CoV-2, may have contributed to the intensity and severity of these symptoms.

We believe that the limitations in this study may be related to the sample's level of education, which is higher than the average for the general population.

The data from the present study allow us to state that the main climacteric symptoms that negatively impact the quality of life are related to the domains of somatic symptoms, sexual behavior, vasomotor symptoms, and memory/con centration. The main self-care actions were taking bath, use of teas, relax, use of lubricants, and use of medications. In addition, the quality of life of those investigated during the COVID-19 pandemic was shown to be compromised, especially in the psychological domain.

Final considerations: We hope that the results of this study will stimulate the development of future research that develop strategies to reduce the impact of climacteric syndrome on women's quality of life, collaborating, if possible, with the strengthening of health policies aimed at women's health care in the aging process, which may have been affected by the social isolation brought about by the pandemic.

Ethics Committee Approval: The study complied with resolution number 466/2012 and was sent to the Research Ethics Committee of the Federal University of Sergipe (CEP/UFS), through Plataforma Brasil, after approval by the Municipal Health Department of Aracaju. The approval number: 4.023,073. To participate in the research, it was necessary to be inserted within the criteria and accept to participate by confirming the Free and Informed Term (TCLE).

Informed Consent: Written informed consent was obtained from all participants who participated in this study.

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