

## **FACTORS ASSOCIATED WITH NEGATIVE SELF-RATED HEALTH OF MIDDLE-AGED WOMEN**

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### **ABSTRACT**

**Objective:** To evaluate factors associated with negative self-rated health among middle-aged women treated at a climacteric outpatient clinic.

**Method:** This is a cross-sectional, analytical study conducted with 116 women assisted in the period between March 2015 and March 2020 at the climacteric outpatient clinic of a university hospital in Cuiabá, MT, Brazil. Data were collected through telephone interviews from October 2020 to January 2021, using a questionnaire containing questions about sociodemographic, health and psychosocial data. Self-rated health was checked by asking the subjects how they rated their health. The association measure used was the prevalence ratio and 95% confidence intervals (95%CI). Poisson's multiple regression was used in the multivariate analysis.

**Results:** Most middle-aged women in this study (54.3%) had negative self-rated health. The factor associated with the outcome was menopausal symptoms ( $p < 0.001$ ), identified in the severe menopausal symptoms category PR= 2.95 (95%CI 1.4-6.3).

**Conclusion:** The higher prevalence of negative self-rated health among the women in this study is probably related to the life stage they are experiencing. Menopausal symptoms are associated with women's perception of health due to their discomfort and consequent impact on their lives.

**DESCRIPTORS:** Self-assessment. Middle-age. Climacteric. Women. Women's health.

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# FATORES ASSOCIADOS À AUTOAVALIAÇÃO DA SAÚDE NEGATIVA DE MULHERES DE MEIA-IDADE

## RESUMO

**Objetivo:** Avaliar os fatores associados à autoavaliação da saúde negativa de mulheres de meia-idade atendidas em um ambulatório de climatério.

**Método:** Estudo transversal, analítico, desenvolvido com 116 mulheres atendidas no período entre março de 2015 e março de 2020 no ambulatório de climatério de um hospital universitário de Cuiabá-MT. Os dados foram coletados, por meio de entrevista por telefone, no período de outubro de 2020 a janeiro de 2021, utilizando-se questionário contendo perguntas sobre dados sociodemográficos, de saúde e psicossociais. A autoavaliação da saúde foi verificada perguntando como elas avaliavam sua saúde. A medida de associação utilizada foi a razão de prevalência e intervalos de confiança de 95% (IC 95%). Na análise multivariada utilizou-se a regressão múltipla de Poisson.

**Resultados:** A maioria das mulheres de meia-idade deste estudo (54,3%) apresenta autoavaliação da saúde negativa. O fator que apresentou associação ao desfecho foi sintomas da menopausa ( $p < 0,001$ ), identificado na categoria de sintomas severos da menopausa  $RP = 2,95$  (IC 95% 1,4-6,3).

**Conclusão:** A maior prevalência de autoavaliação da saúde negativa das mulheres deste estudo, provavelmente, tem relação com a fase da vida em que estão vivenciando. Os sintomas da menopausa têm associação com a percepção de saúde das mulheres pelos seus desconfortos e consequente impacto em suas vidas.

**DESCRITORES:** Autoavaliação. Meia-idade. Climatério. Mulheres. Saúde da mulher.

# FACTORES ASOCIADOS A LA AUTOEVALUACIÓN DE SALUD NEGATIVA DE MUJERES DE MEDIA EDAD

## RESUMEN

**Objetivo:** Evaluar los factores asociados con la autopercepción de salud negativa entre mujeres de mediana edad atendidas en un ambulatorio de climaterio.

**Método:** Estudio transversal, analítico, realizado con 116 mujeres atendidas en el período comprendido entre marzo de 2015 y marzo de 2020 en el ambulatorio de climaterio de un hospital universitario de Cuiabá-MT, Brasil. Los datos fueron recolectados a través de entrevistas telefónicas, de octubre de 2020 a enero de 2021, utilizando un cuestionario que contenía preguntas sobre datos sociodemográficos, de salud y psicosociales. La salud autoevaluada se verificó preguntando cómo calificaron su salud. La medida de asociación utilizada fue la razón de prevalencia e intervalos de confianza del 95% (IC 95%). En el análisis multivariante se utilizó la regresión múltiple de Poisson.

**Resultados:** La mayoría de las mujeres de mediana edad en este estudio (54,3%) tenían una autoevaluación de salud negativa. El factor asociado al desenlace fueron los síntomas menopáusicos ( $p < 0,001$ ), identificados en la categoría síntomas menopáusicos severos  $PR = 2,95$  (IC 95% 1,4-6,3).

**Conclusión:** La mayor prevalencia de autoevaluación de salud negativa entre las mujeres de este estudio probablemente esté relacionada con la etapa de la vida en la que se encuentran. Los síntomas de la menopausia están asociados a la percepción de salud de la mujer por su malestar y consecuente impacto en su vida.

**DESCRIPTORES:** Autoevaluación. Edad Media. Climatérico. Mujer. La salud de la mujer.

## INTRODUCTION

The longevity of women is a phenomenon that accompanies population aging. Estimates indicate that women usually live about seven years longer than men, whose life expectancy is 72.8 years, while that of women is 79.9 years<sup>1</sup>. However, this does not imply that they are necessarily healthier. Women are affected by a higher percentage of chronic diseases and comorbidities, are more likely to have disabling conditions such as frailty and osteoporosis<sup>2</sup>, in addition to being more susceptible to depression and anxiety and having a higher prevalence of dementia and risk of suicide<sup>2</sup>.

Due to gender inequalities, women suffer impacts related to socioeconomic factors which affect their education, income and employment. Women suffer more domestic violence and have greater difficulties in accessing healthcare. These factors lead to a decrease in healthy life expectancy<sup>2-3</sup>.

The literature produced on women's health mainly focuses on women in the younger age group (reproduction, teenage pregnancy and maternal health) and on older women (menopause, falls, dementia, violence and social isolation)<sup>4</sup>. Little has been studied about middle-aged women and their health needs<sup>5</sup>.

In terms of age group, there is still no consensus in the literature that defines middle age. The World Health Organization (WHO) considers that people aged between 45 and 59 years are in this phase, and the United Nations (UN) defines the period between 40 and 59 years. This is a stage in women's lives marked by changes, starting with physiological and bodily changes linked to the aging process.

The climacteric is a midlife milestone that usually takes place between 40 and 65 years of age. This event has notorious repercussions in the lives of many women due to physical, affective, sexual, family and occupational changes. This can generate a physical, psycho-emotional and social overload which favors the emergence of processes that affect women's health, making them more critical<sup>6-7</sup>.

A key health indicator in monitoring the health conditions of the population not only used in developed countries in health research, but also in developing countries is self-rated health (SRH). Studies which have analyzed negative SRH of middle-aged women are scarce and mainly investigated those who were in the climacteric and menopause. Of the studies found, most were produced in developed countries<sup>8,9,10,11,12</sup>. In contrast, studies that investigated middle-aged women from developing countries whose life and health contexts are different are scarce. There was one older investigation<sup>13</sup> and one more recent<sup>14</sup>, so little is known about negative SRH of these women and the associated factors.

Existing studies show that advanced age, having a partner, not having a steady job, low income and education; smoking, sedentary lifestyle, medication use, depressive and anxiety symptoms, chronic diseases, and climacteric and/or menopause symptoms are associated with negative SRH in middle-aged women<sup>8,9,10,13,14</sup>. In addition, no study was carried out by nursing, and this group of women is often assisted by nurses, mainly in Primary Healthcare. Therefore, a better understanding of the self-rated health of middle-aged women in developing countries is necessary.

In view of the above, the aim of this study was to evaluate the factors associated with negative self-rated health in middle-aged women treated at a climacteric outpatient clinic.

## METHOD

This is a cross-sectional and analytical study carried out at the climacteric outpatient clinic of a university hospital in the city of Cuiabá, Mato Grosso, Brazil. The study population consisted of all women treated at the climacteric outpatient clinic of the aforementioned hospital. The inclusion

criterion was to be between 40 and 59 years old on the date of the interview; and having been attended at the outpatient clinic in the last five years, meaning from March 2015 to March 2020. A total of 455 women were seen at the outpatient clinic during this period. After consulting the medical records, 208 women were identified who were in the middle-aged range. After telephone contact, 69 telephone numbers were incorrect or did not exist, 16 women did not answer the telephone call after three contact attempts on different days and times, and seven refused to participate. Therefore, the final population was 116 women.

A semi-structured questionnaire was constructed by the authors containing sociodemographic data, health and psychosocial conditions, and a question to evaluate the women's SRH.

Then, a pilot test was conducted with eight women with similar characteristics to those who were part of the study population. After instrument adjustments, data collection took place from October 2020 to January 2021 through telephone interviews.

The following variables were determined:

Dependent variable: The SRH measurement was obtained through the following question: "How do you rate your health in general?" The participants had one of five answers as an option: Very good, Good, Average, Bad and Very bad.

A Likert-type scale was adopted to score each response, and the values were from one to five points, as follows: Very good (5 points), Good (4 points), Average (3 points), Bad (2 points) or Very bad (1 point). The variable was classified into two levels: positive SRH (4 to 5 points) and negative SRH (1 to 3 points).

The independent variables were: sociodemographic (age, marital status, self-reported color or race, religion or cult, number of people living in the home, education, occupational status, individual income, family income and participation in social groups); and health conditions (practice of physical activities, sexually active life, smoker, self-reported morbidities, and regular medication use). The CAGE questionnaire (Cut down, Annoyed by criticisms, Guilty, Eye-opener) was applied to screen and detect alcoholism, in which the items are classified as: 0 (zero) for negative answers and 1 (one) for positive answers, and the result with a score of 2 (two) or more points is indicative of having alcohol problems<sup>15</sup>.

The assessment of climacteric symptoms was performed using the Menopause Rating Scale (MRS), which is comprised of 11 questions divided into 3 subscales; the answer to each question is classified on a severity scale ranging from zero (no symptoms) to four (very severe symptoms)<sup>16</sup>.

Psychosocial conditions (leisure habits) were also evaluated, and the Patient Health Questionnaire-9 (PHQ-9) was applied, which has nine items on a scale from 0 (never) to 3 (almost every day), with scores ranging from 0 to 27 points, in which the positive indicator of depression is estimated at a value greater than or equal to 10<sup>17</sup>. Generalized anxiety symptoms were evaluated by the Generalized Anxiety Disorder 7- (GAD-7) through seven items, arranged in a scale of four points corresponding to 0 (never) to 3 (almost every day), with scores ranging from 0 to 21 measuring the frequency of signs and symptoms of anxiety in the last two weeks<sup>18</sup>.

The collected data were coded and double-entered into Excel 2013 electronic spreadsheets. The prevalence of negative SRH was estimated according to sociodemographic, health and psychosocial variables. The bivariate association between negative SRH and the independent variables was verified using the Pearson's chi-squared test.

Multiple regression analysis was performed using the Poisson regression model with robust variance. Prevalence ratios (PR) and their respective 95% confidence intervals (95% CI) were estimated. All variables which presented  $p \leq 0.20$  in the bivariate analysis were included for the multiple model.

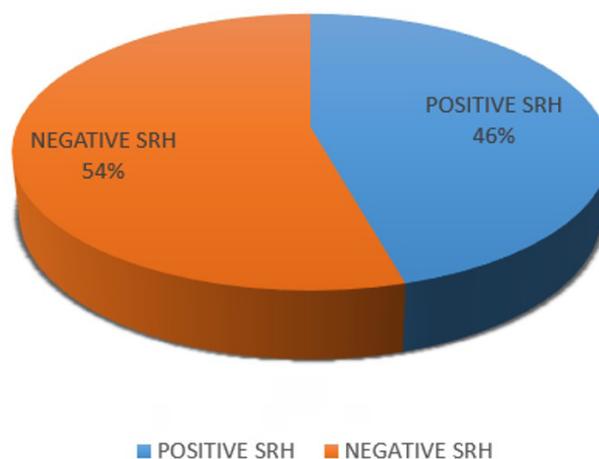
A significance level of 5% was adopted in the final model to determine the variables associated with negative SRH. Statistical analyzes were processed using Stata version 12.0 software program (Stata Corp., College Station, United States).

The project was approved by the Research Ethics Committee and followed all the ethical precepts of Resolution No. 466/2012, including obtaining acceptance of the Informed Consent Form.

## RESULTS

The prevalence analysis of SRH among middle-aged women in this study showed that the majority (54.3%) had negative SRH (Figure 1).

PREVALENCE OF SELF-RATED HEALTH OF MIDDLE-AGED WOMEN



**Figure 1** – Prevalence of self-rated health of middle-aged women attended at the climacteric outpatient clinic of the Hospital Universitário Júlio Muller, according to health and psychosocial variables, Cuiabá, MT, Brazil (n=116).

The population was mostly composed of women aged between 50 and 59 years (73.3%) and who had 9 to 11 years of formal education (47.4%). Most are Catholic (56.0%), brown (56.0%), work (58.6%), have a partner (69.0%) and live with other people at home (89.7%). In addition, 69.0% and 37.9% have individual and family income of up to one minimum monthly salary, respectively (Table 1).

In the bivariate analysis between negative SRH and sociodemographic variables, only the age group variable ( $p= 0.04$ ) showed a statistically significant association. It is observed that negative SRH is more prevalent (60%) in women whose age group is 50 to 59 years (Table 1).

**Table 1** – Distribution and prevalence of negative self-rated health according to sociodemographic variables of middle-aged women attended at the climacteric outpatient clinic of the Hospital Universitário Júlio Muller, Cuiabá, MT, Brazil (n=116).

Variables	n	%	Prevalence of negative SRH*		p-value
			n	%	
Age range					0.04
40 – 49 years	31	26.7	12	38.7	
50 – 59 years	85	73.3	51	60.00	

Table 1 – Cont.

Variables	n	%	Prevalence of negative SRH*		p-value
			n	%	
Marital/Relationship status					0.25
With companion	80	68.9	49	61.3	
No companion	36	31.1	14	38.9	
Education level					0.55
00 to 4 years	32	27.6	18	56.3	
05 to 8 years	11	9.5	06	54.6	
09 to 11 years	55	47.4	32	58.2	
12 > years	18	15.5	07	38.9	
Religion					0.63
Catholic	65	56.0	33	50.8	
Evangelical	42	36.2	25	59.5	
No religion	03	2.6	01	33.3	
Other religions	06	5.2	4	66.7	
Skin color or Race					0.31
White	21	018.1	10	47.6	
Black	27	23.3	19	70.4	
Brown	65	56.0	32	49.2	
Indigenous	01	00.9	01	100	
Yellow	02	01.7	01	50	
Current work situation					0.06
Not working	48	41.4	31	64.6	
Working	68	58.6	32	47.1	
Individual income					0.52
Up to 1 minimum monthly salary	80	69.0	46	57.5	
1 > up to 2 minimum monthly salaries	24	20.7	12	50.5	
2 or more minimum monthly salaries	12	10.3	05	41.3	
Family income					0.64
Up to 1 minimum monthly salary	44	37.9	26	59.1	
1 > up to 2 minimum monthly salaries	35	30.2	19	54.3	
2 or more minimum monthly salaries	37	31.9	18	48.7	
People living in the household					0.85
Living alone	012	10.3	06	50.0	
Living with other people	104	89.7	57	54.8	

Legend: \*SRH – self-rated health.

Regarding health conditions, 39.7% of the women reported having two or more morbidities, 75.0% regularly use medication, 98.3% do not use illicit drugs, 70.7% have never smoked, 92.2% are not alcoholics and 56.9% do not practice physical activities. Most are sexually active (57.8%) and have severe menopausal symptoms (56.9%) (Table 2).

The morbidities ( $p=0.04$ ) and menopausal symptoms ( $p<0.001$ ) variables showed a significant association in the bivariate analysis ( $p<0.001$ ) (Table 2).

**Table 2** – Distribution and prevalence of negative self-rated health according to health variables of middle-aged women attended at the climacteric outpatient clinic at the Hospital Universitário Júlio Muller, Cuiabá, MT, Brazil (n=116).

Variables	n	%	Prevalence of negative *SRH		p-value
			n	%	
Practice physical activity					0.66
Sim	50	43.1	26	52.0	
No	66	56.9	37	56.1	
Active sexual life					0.88
Yes	67	57.8	36	53.7	
No	49	42.2	27	55.1	
Smoking					0.31
Current smoker	09	7.8	7	77.8	
Never smoked	82	70.7	42	51.2	
Ex-smoker	25	21.6	14	56.0	
Alcoholism (CAGE†)					0.43
Yes	009	7.8	6	66.7	
No	107	92.2	57	53.3	
Daily medication use					<b>0.10</b>
Yes	87	75.0	51	58.6	
No	29	25.0	12	41.4	
Participate in social groups					0.24
Yes	48	41.4	23	47.9	
No	68	58.6	40	58.8	
Number of morbidities / health conditions					<b>0.04</b>
No conditions / impairments	39	33.6	15	38.5	
One condition / impairment	31	26.7	18	58.1	
Two or more conditions / impairments	46	39.7	30	65.2	
Menopause Symptoms Scale (MRS)					<b>&lt;0.001</b>
Absent or light	27	23.3	06	22.2	
Moderate	23	19.8	10	43.5	
Severe	66	56.9	47	71.2	

Legend: \*SRH – self-rated health. † CAGE – Cut down, Annoyed by criticism, Guilty and Eye-opener.

Regarding the psychosocial variables, most women (50.9%) have leisure habits and presented negative indicators of signs and symptoms of depression and anxiety (56.9% and 63.8%, respectively) (Table 3).

The prevalence of negative SRH was higher in the bivariate analysis among those who did not have leisure habits (58.0%) and a positive indicator of signs and symptoms of depression (58.0%) and anxiety (65.1%) (Table 3).

All variables which presented  $p \leq 0.20$  in the bivariate analysis (age group, occupational status, regular medication use, leisure habits and morbidity) were included in the final multiple model. The variable that was significant with the outcome was menopausal symptoms ( $p < 0.001$ ), identified in the severe menopausal symptoms category (PR = 2.95; 95%CI 1.4-6.3) (Table 4).

**Table 3** – Distribution and prevalence of negative self-rated health according to psychosocial variables of middle-aged women attended at the climacteric outpatient clinic at the Hospital Universitário Júlio Muller, Cuiabá, MT, Brazil (n=116).

Variables	n	%	Prevalence of negative *SRH		p-value
			n	%	
Leisure habits					<b>0.06</b>
Yes	59	50.9	27	45.8	
No	57	49.1	36	63.2	
Indicator of depressive signs and symptoms (PHQ9)					0.48
Positive indicator	50	43.1	29	58.0	
Negative indicator	66	56.9	34	51.5	
Indicator of signs and symptoms of anxiety disorders (GAD7)					0.73
Positive indicator	42	36.2	28	65.1	
Negative indicator	74	63.8	35	48.0	

Legend: \*SRH – self-rated health.

**Table 4** – Multiple analysis of the association between self-rated health and sociodemographic and health variables of middle-aged women attended at the climacteric outpatient clinic of the Hospital Universitário Júlio Muller, Cuiabá, MT, Brazil (n=116).

Variables	PR*	95%CI†	p-value
Age range			
40 – 49 years	1		
50 – 59 years	1.29	0.80 – 2.06	0.28
Currently working			
Not working	1		
Working	1.22	0.91 – 1.64	0.16
Daily medication use			
Yes	1		
No	1.37	0.86 – 2.17	0.17
Leisure habits			
Yes	1		
No	0.91	0.67 – 1.24	0.58
Number of morbidities / health conditions			
No conditions	1		
One health condition	1.29	0.78 – 2.12	0.30
Two or more health conditions	1.28	0.80 – 2.05	0.29
Menopause Symptom Scale (MRS)			
Absent or light	1		
Moderate	2.09	0.88-4.98	0.09
Severe	2.95	1.38- 6.33	<b>p&lt; 0.001</b>

Legend: \*PR – prevalence ratio. † CI- confidence interval.

## DISCUSSION

To the best of our knowledge, this is one of the few studies that investigated negative SRH in middle-aged women. Of these, one study<sup>9</sup> showed that almost half (49.9%) of middle-aged women had moderate and poor SRH. In another study, the authors investigated the SRH of women in four countries and found a higher prevalence of negative SRH among women living in Morocco (moderate 42% and poor 28%) and Lebanon (moderate 35% and poor 22%). The prevalence of positive SRH was predominant among those living in the United States (7% excellent, 18% very good and 60% good) and Spain (24% excellent, 36% very good and 30% good)<sup>19</sup>.

A possible explanation for the higher prevalence of negative SRH among middle-aged women may be the physical, affective, sexual, family and occupational alterations/changes which occur along/ during the aging process, with the climacteric being the main milestone<sup>20,14</sup>.

In fact, the physiological and bodily changes mainly resulting from estrogen deprivation can cause frequent hot flashes and night sweats, menstrual cycle irregularities, sleep problems, urogenital symptoms, tiredness, lack of energy, decreased libido and vaginal dryness<sup>6,7</sup>. Furthermore, a woman's body tends to change shape and appearance during this phase, with the appearance of wrinkles, skin dryness, hair graying and changes in weight and metabolism. Other characteristic alterations of middle age are the psycho-emotional changes. These women are more susceptible to depression and anxiety and have a higher prevalence of dementia and suicide risk<sup>2,21</sup>.

Another possible explanation for the higher prevalence of negative SRH found in this study is the socioeconomic factor. Studies conducted with middle-aged women show that those who evaluate their health negatively are those with low education and income levels, and absence of formal work<sup>14,21</sup>.

Studies show that women begin to feel discriminated against as they age, and disregarded by a society that values youth and appearance. In addition, they suffer more from discrimination, domestic violence and have greater difficulties in accessing health actions than men<sup>3,20</sup>.

Still regarding men, studies show that women have worse self-rated health<sup>9</sup> compared to men, and this has been explained by the fact that women are more physically, psychologically and socially vulnerable<sup>22</sup>. They are more likely to have chronic health conditions, disabilities, cognitive decline and low self-esteem. Women are more subject to social, political and economic inequality, generally being those with the lowest income and education<sup>22</sup>.

The association found in this study between negative SRH and severe menopausal symptoms was not found in similar studies<sup>9,13,22</sup>. A possible explanation for this association is that the physical symptoms of the climacteric are more severe in some women. Women usually have hot flashes, sweating, sleep and bladder problems, vaginal dryness, muscle and joint pain<sup>23,7</sup>. Such symptoms cause great discomfort, which can have negative effects on the psychological state of these women, such as a depressed state of mind, irritability, anxiety, physical and mental exhaustion<sup>23,21</sup>. This condition often determines a negative impact on the SRH of middle-aged women and on their quality of life<sup>21,24</sup>.

The higher prevalence of negative SRH in the women studied and the associated factor found may be pointing to the current health status of these women and the impact that this may have on their health. As this indicator is a strong predictor of disease and mortality and reflects people's attitudes and beliefs about the biological, psychological and social dimensions of health<sup>25</sup>, the impact on these women's health is significant and needs attention from professionals and health services.

A possible limitation of this study is that data collection was performed over the telephone, which despite being a valid and cost-effective technique, may influence the participants' responses. Although the main research question required an objective answer, there is subjectivity involved as it is a perception. A telephone interview restricts the opportunity for a more personalized response, in which doubts can be clarified and consequently obtain better quality data<sup>26</sup>.

## CONCLUSION

This research showed that the majority of middle-aged women studied had negative AAS, which is probably due to the various physical and psychosocial aspects that permeate these women's lives. The factor associated with negative AAS was severe climacteric symptoms, which usually impact women's health perception due to their discomfort. These results provide subsidies for a better understanding of women in this age group and the aspects that interfere with their health. And, above all, they point to the need for health professionals to propose strategies to better welcome and assist women in this phase of life.

As it is the first study carried out by nursing on the SRH of middle-aged women, its results may support planning actions in this area and thus promote the health of women in this life period. In addition, the findings may help teaching and research in the mid-northern region of Mato Grosso, given that this information may guide practices articulated by nurses and the entire multidisciplinary team in health services. Moreover, it might mainly help to create new spaces and/or health services, as well as climacteric outpatient clinics with the purpose of assisting and better welcoming women in this phase of life.

The study also creates perspectives for further research on the factors associated with negative SRH in middle-aged women, and more qualitative research, so that they can bring more subjective information about this period and the discomforts they face which compromise their health, well-being and quality of life.

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## NOTES

### ORIGIN OF THE ARTICLE

Extracted from the dissertation – *Autoavaliação da Saúde de Mulheres de Meia Idade*, presented to the Post-graduate Program in Nursing, of the Universidade Federal de Mato Grosso, in 2022.

### CONTRIBUTION OF AUTHORITY

Study design: Barroso BMA, Reiners AAO, Azevedo RCS

Data collection: Barroso BMA, Falcão VRAL, Agulhó DLZ, Mazza TR

Data analysis and interpretation: Barroso BMA, Reiners AAO, Azevedo RCS

Discussion of the results: Barroso BMA, Reiners AAO, Azevedo RCS, Lima ACMS

Writing and/or critical review of content: Barroso BMA, Reiners AAO, Azevedo RCS, Lima ACMS

Revision and final approval of the final version: Barroso BMA, Reiners AAO, Azevedo RCS

### ETHICS COMMITTEE IN RESEARCH

Approved by the Research Ethics Committee of the Hospital Universitário Júlio Miller, opinion no. 4.314.467/2021, Certificate of Presentation for Ethical Appreciation no. 27642619300005541.

### CONFLICT OF INTEREST

There is no conflict of interest.

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