



## ORIGINALES

### Sexuality and depressive symptomatology in elderly residents in northeastern Brazil

Sexualidade e sintomatologia depressiva em idosos residentes no nordeste do Brasil  
Sexualidad y sintomatología depresiva en ancianos residentes en el nordeste de Brasil

Edison Vitório de Souza Júnior<sup>1</sup>

Sterline Therrier<sup>2</sup>

Cristiane dos Santos Silva<sup>3</sup>

Bianca de Moura Peloso-Carvalho<sup>4</sup>

Lais Reis Siqueira<sup>2</sup>

Namie Okino Sawada<sup>5</sup>

<sup>1</sup> Nurse. Doctoral student in Sciences of the Postgraduate Program in Fundamental Nursing. Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo (EERP/USP), Ribeirão Preto, São Paulo, Brazil.

<sup>2</sup> Nurse. Master's student in Nursing, Postgraduate Program in Nursing. Federal University of Alfenas. Alfenas, Minas Gerais, Brazil.

<sup>3</sup> Physical Education Professional. Universidade Norte do Paraná (UNOPAR), Jequié, Bahia, Brazil. [cristianeimicc@gmail.com](mailto:cristianeimicc@gmail.com)

<sup>4</sup> Nurse. Doctoral student and Master in Nursing, Postgraduate Program in Nursing. Federal University of Alfenas. Alfenas, Minas Gerais, Brazil.

<sup>5</sup> Nurse. PhD in Nursing. Full Professor of the Postgraduate Program of the Federal University of Alfenas (UNIFAL), Alfenas, Minas Gerais, Brazil.

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### ABSTRACT:

**Objective:** To analyze the association of sexuality with the bio-sociodemographic variables and depressive symptomatology in the elderly.

**Method:** This is a sectional study designed with 292 elderly people. Data were collected between August and October 2020. The Elderly Affective and Sexual Experiences Scale and the Geriatric Depression Scale were used. Mann-Whitney, Spearman correlation, and Kruskal-Wallis tests were used, adopting a 95% confidence interval for all statistical analyses.

**Results:** The participants were predominantly male (52.1%) and aged between 60 and 64 years (46.6%). The prevalence of depressive symptoms was 30.1% for mild cases and 8.6% for severe cases.

The elderly with depressive symptomatology experienced worse the sexual act, affective relationships, and physical and social adversities related to sexuality. The only dimension of sexuality that was associated with the bio-sociodemographic variables was the "sexual act," proving to be better experienced by the elderly in stable unions ( $p = 0.023$ ) and among those who live with their partner for a period  $\leq 5$  years, when compared to those with living together for more than 20 years ( $p = 0.001$ ). In addition, only the Sexual act dimension correlated negatively and with moderate magnitude with severe depressive symptoms ( $\rho = -0.442$ ;  $p = 0.027$ ), indicating that these two variables present inversely proportional behaviors.

**Conclusion:** Sexuality is associated with some bio-sociodemographic variables and correlated with severe depressive symptoms among the elderly.

**Keywords:** Elderly health; Sexuality; Elderly; Mental health; Depression.

## RESUMO:

**Objetivo:** Analisar a associação entre a sexualidade com as variáveis biosociodemográficas e sintomatologia depressiva em idosos.

**Método:** Trata-se de um estudo seccional delineado com 292 idosos. Realizou-se a coleta de dados entre agosto e outubro de 2020. Foi utilizada a Escala de Vivências Afetivas e Sexuais do Idoso e a Escala de Depressão Geriátrica. Utilizou-se os testes de *Mann-Whitney*, correlação de *Spearman* e *Kruskal-Wallis*, adotando intervalo de confiança de 95% para todas as análises estatísticas.

**Resultados:** Predominaram-se os participantes do sexo masculino (52,1%) e com idade entre 60 e 64 anos (46,6%). A prevalência de sintomatologia depressiva foi de 30,1% para os casos leves e 8,6% para os severos. Os idosos com sintomatologias depressivas pior vivenciaram o ato sexual, as relações afetivas e as adversidades física e social relacionadas à sexualidade. A única dimensão da sexualidade que se associou com as variáveis biosociodemográficas foi o ato sexual, demonstrando ser melhor vivenciada pelos idosos em união estável ( $p=0,023$ ) e entre aqueles que convivem com o parceiro por um período  $\leq 5$  anos, quando comparados a aqueles com convivência superior a 20 anos ( $p=0,001$ ). Além disso, somente a dimensão ato sexual se correlacionou de maneira negativa e com moderada magnitude entre os sintomas depressivos severos ( $\rho= -0,442$ ;  $p=0,027$ ), indicando que essas duas variáveis apresentam comportamentos inversamente proporcionais.

**Conclusão:** A sexualidade está associada à algumas variáveis biosociodemográficas e correlacionada às sintomatologias depressivas severas entre os idosos.

**Palavras-chave:** Saúde do idoso; Sexualidade; Idoso; Saúde mental; Depressão.

## RESUMEN:

**Objetivo:** Analizar la asociación entre sexualidad y variables biosociodemográficas y síntomas depresivos en adultos mayores.

**Método:** Se trata de un estudio seccional diseñado con 292 personas mayores. La recolección de datos se realizó entre agosto y octubre de 2020. Se utilizó la Escala de Experiencias Sexuales y Afectivas de Ancianos y la Escala de Depresión Geriátrica. Se utilizaron pruebas de Mann-Whitney, correlación de Spearman y pruebas de Kruskal-Wallis, adoptando un intervalo de confianza del 95% para todos los análisis estadísticos.

**Resultados:** Predominaron los varones (52,1%) y entre 60 y 64 años (46,6%). La prevalencia de síntomas depresivos fue del 30,1% para los casos leves y del 8,6% para los graves. Los ancianos con síntomas depresivos experimentaron peor el acto sexual, las relaciones afectivas y las adversidades físicas y sociales relacionadas con la sexualidad. La única dimensión de la sexualidad que se asoció con las variables biosociodemográficas fue el acto sexual, mostrando que es mejor vivido por los ancianos en unión estable ( $p = 0.023$ ) y entre quienes conviven con la pareja por un período  $\leq 5$  años, en comparación con los mayores de 20 años ( $p = 0,001$ ). Además, solo la dimensión acto sexual se correlacionó negativamente y con magnitud moderada entre los síntomas depresivos graves ( $\rho = -0,442$ ;  $p = 0,027$ ), lo que indica que estas dos variables exhiben comportamientos inversamente proporcionales.

**Conclusión:** La sexualidad se asocia con algunas variables biosociodemográficas y se correlaciona con síntomas depresivos severos en ancianos.

**Palabras clave:** Salud del anciano; Sexualidad; Anciano; Salud mental; Depresión.

## INTRODUCTION

Depression is considered a mood disorder and is characterized by sluggish thinking, apathy, presence or absence of psychomotor retardation, and loss of interest in daily activities<sup>(1)</sup>. It is configured as the main cause of disability and one of the main factors contributing to the increase in the overall global burden of any disease. It is estimated that, worldwide, approximately 350 million people suffer from depression<sup>(2)</sup>.

Geriatric depression is a problem of great impact on global public health. It is a risk factor of high magnitude for the incidence of cardiovascular diseases<sup>(1)</sup> and is associated with increased morbidity and mortality<sup>(1,3)</sup>, low therapeutic adherence, reduced quality of life, self-care deficit, and substantial financial impacts on health services<sup>(4,5)</sup>.

During the aging process, there is a weakening of the psychophysiological functions, and degenerative alterations can occur in the sensorial organs and nervous system. In this sense, the genesis of geriatric depression is related to the metabolism of the nervous system and alterations in some neurotransmitters. Furthermore, it is cited that changes in social roles, in the family environment, and in life events, such as somatic pathologies and the death of a spouse, can contribute to increase the susceptibility of the elderly to geriatric depression<sup>(1)</sup>.

It is worth noting that the prevalence of geriatric depression increases significantly as population aging accelerates. Currently, the clinical diagnosis of geriatric depression is non-existent, and most elderly people do not have sufficient family or community support<sup>(1)</sup>.

The literature shows that the diagnostic rate of depression among the elderly is low, and estimates indicate that 50% of the cases are not diagnosed by Primary Health Care professionals. This reality can be explained, in part, by the similarity of the depressive symptomatology with senescence, highlighting fatigue, lack of appetite, indisposition, and somnolence, which are confused with the organic adaptation process to aging<sup>(6)</sup>.

From this perspective, the Family Health Strategy must provide strategies that favor the quality of the aging process, focusing not only on the physical aspects, but on the entire human dimension, such as sexuality<sup>(7)</sup>. This is an essential construct of human existence, which adapts according to the sociocultural and religious context in which the individual is inserted<sup>(8)</sup>.

Sexuality is made up of human aspects and can be manifested in various ways. It is a force that stimulates the ability to connect individuals to pleasure/displeasure, needs, desires, and even life itself, expressed through doctrines, thoughts, coexistence, desires, fantasies, judgments, habits<sup>(7)</sup>, reproduction, love<sup>(8)</sup>, gender identities and roles, intimacy, eroticism, behaviors, attitudes, relationships, and the sexual act itself<sup>(9)</sup>.

Thus, it is understood that sexuality transcends the body and the physical aspects, for in it occurs the union of affection, culture, society, and harmony in the relationship. Therefore, sexuality is intrinsic to the human being in all stages of the life cycle and

should be explored differently in each phase. However, in old age, it has been faced with prejudice and myths. There is still the thought that sexuality concerns only youth; and, when exercised in old age, it becomes something unusual and immoral<sup>(8)</sup>.

However, it is noteworthy that aging does not preclude the full and satisfactory experience of sexuality. However, the figure of the elderly in the current sociocultural context is of an asexual being who does not experience it; this promotes the disregard of health professionals to holistic care, which increases the vulnerability of this population<sup>(8)</sup>. Furthermore, the suppression and/or annulment of sexuality by the elderly can accelerate the aging process and result in undesirable mental health events<sup>(10)</sup>.

It is in this perspective that the scientific deepening on sexuality and mental health of the elderly becomes relevant. Due to the increase in life expectancy and, consequently, population aging, it is necessary to implement new strategies and technologies of care that, based on holistic assistance, are able to promote and protect the health of the elderly.

In this sense, the hypothesis of this study is that sexuality is associated with the bio-sociodemographic variables and correlated to depressive symptomatology among the elderly. If there is statistical confirmation, this study will be fundamental to break the prejudices and stimulate health professionals to approach the theme with their community.

It is informed that health professionals, especially those who integrate the FHS, play essential roles in promoting the health of the elderly. The longitudinality of care in Primary Care strengthens the bond with service users and, in turn, facilitates and encourages the expression of intimate needs, especially those related to sexuality<sup>(8)</sup>. Within this context, this study aimed to analyze the association of sexuality with the bio-sociodemographic variables and depressive symptomatology in the elderly.

## METHOD

This is a sectional study with a descriptive and analytical approach designed based on the recommendations of the STROBE checklist<sup>(11)</sup> and carried out with 292 elderly residents in the Northeast of Brazil. They were selected by means of the non-probabilistic consecutive technique. The inclusion criteria were: being 60 years old or older; being married or having a fixed partnership; residing in the Brazilian Northeast.

Data collection occurred online between the months of August and October 2020 through the social network Facebook. A page was created exclusively for the development of scientific research, in which the hyperlink to access the questionnaire organized in Google Forms was published. On Facebook, the authors used the geolocation tool that allowed the delimitation of the study scenario to the Brazilian Northeast, along with the strategy of boosting the dissemination of the questionnaire to as many people as possible, until the intended sample was reached.

The survey questionnaire was constructed in three surveys: Bio-sociodemographic; Sexuality; and Depression. Before the participants had access to these surveys, their respective e-mails were required so that the researchers could identify possible

multiplicity of answers by the same participant and, consequently, reduce biases that could compromise the results.

The Bio-sociodemographic survey was prepared with questions created by the researchers themselves with the objective of knowing the profile of the sample studied. Thus, it included questions referring to gender, ethnicity, education, age, sexual orientation, time of coexistence with the partner, number of children, marital status, among others.

The Sexuality survey was developed with the Affective and Sexual Experiences Scale for Elderly (ASESE) built and validated for the Brazilian population<sup>(12)</sup>. The ASESE has 38 questions with five possible answers: 1 - never; 2 - rarely; 3 - sometimes; 4 - frequently; and 5 - always. They are distributed in three dimensions: Sexual act; Affective relationships; and Physical and social adversities. There is no cutoff point for the ASESE: it is considered that the higher/lower score represents better/worse experience of sexuality by the elderly in the dimensions Sexual act and Affective relationships. The third dimension, Physical and social adversities, has negative questions; therefore, the higher the score in this dimension, the worse is the facing of such adversities by the elderly<sup>(12)</sup>.

Finally, the third survey, Depression, was elaborated based on the Geriatric Depression Scale (GDS) validated for elderly Brazilians<sup>(13)</sup>. It is a scale built based on the original model composed of 30 items that cover aspects related to energy, mood, anxiety, past/future orientation, motivation, cognitive complaints and irritability, considered as recurrent depressive symptomatology among the elderly<sup>(14)</sup>. It consists of 15 questions with dichotomous answers (yes/no) whose final score ranges from 0 to 15 points. In this study, we adopted as cutoff point the values of 5 and 6 (no case/case) with the following final interpretation: no depressive symptoms (0 to 5 points), mild depressive symptoms (6 to 10 points) and severe depressive symptoms (11 to 15 points)<sup>(15)</sup>.

It is noteworthy that there was no application of instruments to assess the cognitive ability of the elderly, because they are active people in social networks with skills in handling devices that provide access to networks. To determine the sample size, we considered an infinite population, a prevalence of depression in the elderly of 25.5%, and a prevalence of depression in the elderly of 15.5%<sup>(16)</sup>,  $\alpha = 0.05$  (5%) and  $CI = 95\%$  ( $z_{\alpha/2} = 1.96$ ), resulting in a minimum sample size of 292 participants.

Data analysis was performed using descriptive and inferential statistics with the results presented as absolute and relative frequencies, medians, interquartile range (IQR) and mean ranks. After the Kolmogorov-Smirnov test ( $p < 0.05$ ) was used to confirm data abnormality, the Mann-Whitney test was used for variables with two categories and the Kruskal Wallis H test for variables with more than two categories. Differences between groups in the Kruskal-Wallis test were identified by applying the Bonferroni post hoc test. To compare the independent (sexuality) and dependent (depressive symptomatology) variables, Spearman's correlation ( $\rho$ ) was used considering a 95% confidence level ( $p < 0.05$ ) for all statistical analyses.

This study was approved by the Research Ethics Committee of the Ribeirão Preto School of Nursing, University of São Paulo, under Opinion No. 4.319.644 and Certificate of Submission for Ethical Appreciation (CAAE): 32004820.0.0000.5393.

## RESULTS

Among the study participants, there was a predominance of males (52.1%), aged between 60 and 64 years (46.6%), married (53.4%), and who never received guidance on sexuality from health professionals (76%), according to Table 1. The prevalence of depressive symptoms was 38.7%. Symptoms were classified as mild (30.1%) and severe (8.6%), showing a higher prevalence in females: 56.8% and 52%, respectively (Table 1).

**Table 1** – Biosociodemographic characteristics of participants and depressive symptomatology - Ribeirão Preto, SP, Brazil, 2020

Variables	Depressive Symptomatology							
	Absent (n = 179)		Light (n = 88)		Severe (n = 25)		Total (n = 292)	
	n	%	n	n	n	%	n	%
Sex								
Male	102	57.0	38	43.2	12	48.0	152	52.1
Female	77	43.0	50	56.8	13	52.0	140	47.9
Age Group								
60-64 years	78	43.6	38	43.2	20	80.0	136	46.6
65-69 years	67	37.4	32	36.4	2	8.0	101	34.6
70-74 years	21	11.78	15	17.0	1	4.0	37	12.7
75-79 years	13	7.3	2	2.3	2	8.0	17	5.8
80-84 years	0.0	0.0	1	1.1	0	0.0	1	0.3
Religion								
Catholic	77	43.0	45	51.1	10	40.0	132	45.2
Protestant	27	15.1	8	9.1	4	16.0	39	13.4
Spiritist	26	14.5	11	12.5	3	12.0	40	13.7
African-origin religions	4	2.2	0	0.0	0.0	0.0	4	1.4
Others	15	8.4	16	18.2	5	20.0	36	12.3
No religion	30	16.8	8	9.1	3	12.0	41	14.0
Ethnicity								
White	119	66.5	57	64.8	13	52.0	189	64.7
Yellow	2	1.1	0.0	0.0	1	4.0	3	1.0
Black	7	3.9	6	6.8	3	12.0	16	5.5
Brown	48	26.8	22	25.0	7	28.0	77	26.4
Indigenous	1	6	2	2.3	1	4.0	4	1.4
Unknown	2	1.1	1	1.1	0.0	0.0	3	1.0
Education								
Preschool	10	5.6	13	14.8	2	8.0	25	8.6
Elementary school	12	6.7	9	10.2	2	8.0	23	7.9
Middle school	17	9.5	5	5.7	1	4.0	23	7.9
Highschool	66	36.9	28	31.8	12	48.0	106	36.3
Higher education	74	41.3	33	37.5	8	32.0	115	39.4
Marital status								
Married	92	51.4	45	51.1	19	76.0	156	53.4
Stable Union	39	21.8	20	22.7	2	8.0	61	20.9
With steady partner	48	26.8	23	26.1	4	16.0	75	25.7
How long you have lived with your partner								

≤ 5 years	39	21.8	18	20.5	4	16.0	61	20.9
Between 6 and 10 years old	11	6.1	10	11.4	0.0	0.0	21	7.2
Between 11 and 15 years old	24	13.4	4	4.5	3	12.0	31	10.6
Between 16 and 20 years old	11	6.1	6	6.8	1	4.0	18	6.2
> 20 years	94	52.5	50	56.8	17	68.0	161	55.1
Do you live with your children								
Yes	61	34.1	30	34.1	10	40.0	101	34.6
No	110	61.5	55	62.5	15	60.0	180	61.6
No children	8	4.5	3	3.4	0.0	0.0	11	3.8

Source: The authors.

According to Table 2, we notice that the elderly with some degree of depressive symptoms obtained the lowest medians in the dimensions Sexual act and Affective relationships. Such results indicate that they have a worse experience of their sexuality when compared to the elderly without symptoms.

Regarding the dimension Physical and social adversities, the elderly with some type of depressive symptomatology had the highest medians, indicating that they face these adversities worse in relation to their sexuality when compared to the elderly without symptoms. Finally, in general, sexuality among the elderly is better experienced in affective relationships when compared to the sexual act, represented by higher scores on the medians.

**Table 2** – Participants' sexuality according to depressive symptomatology - Ribeirão Preto, SP, Brazil, 2020

Sexuality	Depressive symptomatology according to the EDG *			
	Absent** Median (IQ)	Light** Median (IQ)	Severe** Median (IQ)	Overall Rating Median (IQ)
Sexual act	75.0 (66.0-82.0)	64.0 (56.5-73.0)	58.0 (50.5-65.5)	71.0 (60.0-79.0)
Affective relationships	77.0 (67.0-83.0)	65.0 (55.0-74.7)	56.0 (45.0-63.5)	72.0 (59.0-80.0)
Physical and social adversities	7.0 (5.0-9.0)	9.0 (7.0-11.0)	9.0 (8.0-11.0)	7.0 (5.2-9.0)

\*Geriatric Depression Scale \*\* Statistically significant differences between groups by Kruskal-Wallis H-test ( $p < 0.001$ )

Source: The authors.

In Table 3, it is noted that gender differs statistically in the Physical and Social Adversities of Sexuality, indicating that elderly men face such adversities worse (158.40;  $p = 0.012$ ). Furthermore, the married and in a stable union elderly differ statistically: those in a stable union experience sexual relationships better (165.12;  $p = 0.023$ ).

Finally, the statistical significance demonstrated in the variable Time of cohabitation with partner shows statistically significant differences in the dimension Sexual act: the elderly who live together for a period ≤ 5 years (176.03;  $p = 0.001$ ) and between 11 and 15 years (181.92;  $p = 0.001$ ) experience better sexual intercourse when compared to the elderly with more than 20 years of cohabitation. In addition, participants who live with their partner for a period between 11 and 15 years of experience better sexual intercourse when compared to those who live together for more than 20 years (130.87;  $p = 0.001$ ).

**Table 3** – Comparison of bio-sociodemographic data with sexuality and depressive symptomatology - Ribeirão Preto, SP, Brazil, 2020

VARIABLE	Sexualidade		
	Sexual act	Affective relationships	Physical and social adversities
	Medium posts		
Sex			
Male	152.01	150.40	158.40
Female	140.52	142.26	133.58
Value of <i>p</i>	0.245	0.410	<b>0.012*</b>
Age Group			
60-64 years	148.23	147.83	141.67
65-69 years	151.57	153.17	148.58
70-74 years	123.88	125.16	160.24
75-79 years	158.26	148.94	135.53
80-84 years	36.00	39.00	270.50
Value of <i>p</i>	0.275	0.323	0.409
Religion			
Catholic	146.02	143.59	152.31
Protestant	158.71	152.95	150.65
Spiritist	146.36	156.15	137.64
African-origin religions	195.50	234.50	180.50
Others	117.90	120.21	141.39
No religion	156.91	154.82	133.66
Value of <i>p</i>	0.226	0.103	0.711
Ethnicity			
White	145.44	146.21	142.02
Yellow	170.83	164.83	128.00
Black	126.44	123.88	130.88
Brown	153.72	152.93	158.53
Indigenous	108.50	89.13	244.50
Unknown	161.00	178.67	91.00
Value of <i>p</i>	0.754	0.546	0.088
Education			
Preschool	156.50	150.54	172.52
Elementary school	154.78	157.37	135.52
Middle school	163.41	173.83	149.67
Highschool	146.37	137.62	144.14
Higher education	139.40	146.17	144.58
Value of <i>p</i>	0.679	0.402	0.562
Marital status			
Married	134.08 <sup>‡</sup>	142.58	147.79
Stable Union	165.12 <sup>‡</sup>	157.54	145.22
With steady partner	157.19	145.67	144.85
Value of <i>p</i>	<b>0.023<sup>†</sup></b>	0.499	0.961
How long you have lived with your partner			
≤ 5 years	176.03 <sup>‡</sup>	157.66	141.83
Between 6 and 10 years old	136.74	138.50	145.55
Between 11 and 15 years old	181.92 <sup>§</sup>	168.69	146.66
Between 16 and 20 years old	136.58	151.56	169.36

> 20 years	130.87 <sup>‡§</sup>	138.48	145.81
Value of <i>p</i>	<b>0.001<sup>†</sup></b>	0.296	0.820
Do you live with your children			
Yes	150.63	147.69	146.63
No	144.08	146.22	147.88
No children	148.09	140.14	122.73
Value of <i>p</i>	0.821	0.959	0.627
Have you ever had orientation about sexuality by health professionals?			
Yes	146.81	151.11	142.82
No	146.40	145.05	147.66
Value of <i>p</i>	0.972	0.600	0.674
Sexual orientation			
Heterosexual	144.95	145.90	146.13
Homosexual	185.15	164.60	149.80
Bisexual	99.20	98.00	150.90
Others	158.29	156.69	148.43
Value of <i>p</i>	0.244	0.488	0.997

\*Statistical significance by Mann-Whitney test ( $p < 0.05$ )

<sup>†</sup>Statistical significance by Kruskal-Wallis test ( $p < 0.05$ )

<sup>‡§</sup> Statistically significant difference by Bonferroni post hoc

Source: The authors.

Finally, Table 4 shows that there is a negative correlation of moderate magnitude between sexual intercourse and severe depressive symptoms ( $\rho = -0.442$ ;  $p = 0.027$ ). This means that these two variables assume inversely proportional behaviors, that is, the better the elderly experience the sexual act, the less severe depressive symptoms will be significantly associated.

**Table 4** – Correlation between sexuality and depressive symptoms - Ribeirão Preto, SP, Brazil, 2020

Sexuality	Depressive symptoms	Spearman's $\rho$	Value of <i>p</i>
Sexual act	Absent	-0.043	0.564
	Light	-0.020	0.853
	Severe	-0.442*	<b>0.027<sup>†</sup></b>
Affective relationships	Absent	-0.041	0.583
	Light	-0.084	0.438
	Severe	-0.248	0.233
Physical and social adversities	Absent	-0.003	0.971
	Light	0.028	0.798
	Severe	0.168	0.423

\*Moderate correlation

<sup>†</sup>Statistical significance by Spearman's  $\rho$  ( $p < 0.05$ )

Source: The authors.

## DISCUSSION

The overall prevalence of depressive symptoms was 38.7%. This result is higher than that found in other similar studies developed in the Northeast, such as that of Rio Grande do Norte (25.5%)<sup>(16)</sup>, Paraíba (28.1%)<sup>(6)</sup>/(25%)<sup>(4)</sup>, Bahia (31.1%)<sup>(17)</sup>, in addition to other regions of the country such as the South (20%)<sup>(5)</sup> and Southeast (14.5%)<sup>(18)</sup>. The female gender stood out with an overall prevalence of 55.7% among the cases. These results corroborate several similar studies, in which elderly women showed a higher prevalence of depressive symptoms<sup>(5,6,17)</sup>.

Such results are in line with the literature, which reveals that women are more vulnerable to the development of depressive symptoms in old age. One of the reasons that justify this reality is the greater longevity of women, which exposes them to greater risk factors such as the development of chronic diseases, hormonal changes during the climacteric period, reduced self-esteem and ability to concentrate, loss of libido, memory difficulty, and irritability<sup>(6)</sup>.

In addition, this study showed that the elderly with some degree of depressive symptoms obtained the lowest medians in the Sexual act and Affective relationships dimensions, and the highest median in the Physical and social adversities dimension. These results indicate that the elderly are experiencing their sexuality worse when compared to those without depressive symptoms.

The affective relationships encompass expressions of pleasure, privacy, affection, friendship, love, and companionship, complicity, among other quantitative and qualitative manifestations. The physical and social adversities elucidate health problems that hinder sexual experiences, feelings of discomfort due to changes in sexuality resulting from the aging process, and fear of being victims of prejudice due to the attitudes taken for the experience of sexuality<sup>(12)</sup>.

In this sense, a Brazilian study conducted with 241 elderly people showed that: participants without depressive symptoms had better knowledge about sexuality in aging; people with depression may lose interest in activities that were previously pleasurable<sup>(9)</sup>, as the expression of sexuality, which is consistent with the findings of this study.

In general, it was observed that sexuality among the elderly is better experienced in affective relationships, represented by higher median scores, compared to the sexual act. These results ratify a transnational study<sup>(19)</sup> conducted with 213 English, Brazilian and Portuguese elderly people, which clearly emphasized the different ways of expressing sexuality in old age, such as expressions of affection, altruism, attention, attractiveness, eroticism and positive communication<sup>(19)</sup>.

In addition, the authors found that sexual intercourse was the fifth most frequent component among the participants<sup>(19)</sup>, demonstrating that the elderly had a broad concept of sexuality, although there is also a study<sup>(20)</sup> that points to sexuality restricted only to genitality and/or reproduction in the view of the elderly.

It was observed that gender differs statistically in the physical and social adversities of sexuality, indicating that elderly men face such adversities worse. Although the elderly

are victims of prejudice regarding sexuality in old age, males are the least affected by negative reactions from society<sup>(12)</sup>; therefore, it was expected that the worst coping with these adversities would be found among older women, mainly because of the gender relations that shape female behavior in society.

It is worth pointing out that, for a long time, women have been subjected - and still are - to a rigid and hierarchical system that positions the male figure as being superior and imputes to women the condition of submission to men. In addition, during the entire socialization process, starting from childhood, women were molded in conservative patterns, being attributed the entire discharge of gender inequalities that can influence the way they perceive sexuality in old age<sup>(21)</sup>.

In the context of the male universe, the worst confrontation of physical and social adversities can directly involve masculinity and the social representations of what it means to "be a man" in a patriarchal society. This is because, with advancing age, sexual dysfunctions, especially those related to erection difficulty, are very common and promote undesirable repercussions beyond the ability to maintain relationships, but with direct impact on the sense of masculinity and well-being among the elderly<sup>(22)</sup>. Therefore, the man without his full sexual capacity feels less like a man and somehow diminished, because there is no longer the virility that is supposed to be present so that he actually feels more like a man. Thus, it becomes necessary to deepen the investigations in the universe of masculinity in order to overcome the image of man as dominant and invulnerable and to value his doubts, uncertainties, fears and insecurities, in addition to enabling the discontinuity of gender stereotypes that are socially disseminated<sup>(23)</sup>.

In the study, married and unmarried elders differ statistically, showing that those in unions experience better sexual relationships. It was expected that the best experiences of sexuality would be found among the married elders, because, in contemporary times, society considers marriage as a space for romanticism, happiness, and the construction of indestructible bonds. An example is the Brazilian culture, in which marriage is seen as a space for affection. Moreover, affective and sexual needs are expressed in different ways and strengthen the conjugal dynamics and bonds, keeping them healthy<sup>(24)</sup>. It should be remembered that the relationships of elderly couples generally begin in their youth and continue into old age<sup>(25)</sup>, being accompanied, even, by the transformations of the times and the revolution of gender roles, which, in fact, are constantly increasing in today's society.

Therefore, it is inferred that, over time, the routine and monotony of the marital relationship can promote negative impacts on the way the elderly express sexuality<sup>(26)</sup>. These findings may also facilitate the understanding of why older adults who live with their partners for five years or less experience better sexual relations when compared to those who live together for more than 20 years, as evidenced in this study.

As for women, they are more likely to experience the widowhood process; for this reason, they may submit to sexual abstinence for lack of a partner, and this culminates in a loss of interest in new relationships. Men, on the other hand, do not hesitate to seek partners, usually younger ones, to continue their sexual relations. The fact is that the presence of a steady partner is considered a favorable aspect for the continuity of relationships<sup>(27)</sup>.

Finally, a negative correlation of moderate magnitude was found between sexual intercourse and severe depressive symptoms. This means that these two variables assume inversely proportional behaviors, that is, the lower the severe depressive symptoms, the better the elderly experience the sexual act. In this perspective, an American study developed with 3,650 individuals whose ages were between 20 and 59 years old identified that the sexually active participants had lower depression scores and better QoL scores, while the sexually inactive people presented higher scores of this psychological morbidity<sup>(28)</sup>.

The reality is that the elderly themselves refer to sexuality as an important aspect in their lives and that regularity in sexual activities is fundamental for the promotion of physical and mental well-being, thus contributing to the reduction of undesirable events associated with the aging process. Thus, a healthy interpersonal relationship, based on love, complicity, harmony, and affection, including in the sexual act, has the potential to promote healthy aging through the balance between physical and mental functions during the years lived<sup>(7)</sup>.

In this sense, the Brazilian Ministry of Health reinforces the relevance of considering the sexual aspects of the elderly, as it recognizes its benefits for quality of life<sup>(8)</sup>, and its experiences can be encouraged, even among the elderly with some type of dementia, if they so desire<sup>(10)</sup>.

However, when the subject is the sexuality of the elderly, there are obstacles in its approach: for example, a Brazilian study<sup>(29)</sup> identified that 73.81% of the elderly interviewed reported difficulty in talking about sex, although 90.48% reported that sex is important for the promotion of happiness. Moreover, other studies point to conservative attitudes among nurses regarding sexuality in old age<sup>(8)</sup>, what hinders the integrality of care.

This evidence is confirmed by the results of this study, in which it was evidenced that 76% of the elderly never received guidance on sexuality by health professionals. It is worth remembering that sexuality includes several ways of obtaining pleasure beyond the sexual act and values qualitative feelings such as affection, love, complicity, among others<sup>(7)</sup>.

In this perspective, the elderly who break the barriers imposed by social prejudice to fully experience their sexuality are those who are well received by health professionals and receive effective assistance, through guidance and clarification on the dynamics inherent in aging, considering their doubts and insecurities<sup>(8)</sup>.

Therefore, to make the elderly free of prejudice, health education is positioned as a relevant strategy for the construction of concepts that break all negative stereotypes associated with sexuality in old age. It is emphasized that this strategy must be carried out with the elderly and with people of any age group, because aging is intrinsic to every living being. All human beings, in the natural course of life, will reach the old age phase, so they need information on the subject<sup>(27)</sup>.

In addition, one must remember that the health educational actions for the elderly population must be rethought and planned according to their specificities, in such a way that the elderly become active agents of the teaching-learning process, valuing their beliefs and knowledge<sup>(30)</sup>.

Finally, it should be noted that this study has limitations, mainly due to its non-probabilistic design, which may compromise external validity. Also, due to the fact that data collection was online, the reach of participants was probably limited to the elderly with higher socioeconomic status, literate and with a high level of education, which is far from the reality of users of the Unified Health System, although access to it is universal and equal for all Brazilians.

## CONCLUSION

It is concluded that the elderly with depressive symptoms experience worse sexuality, and the impacts on this experience were more pronounced in the elderly with severe symptoms. Moreover, there was a statistical association between male gender and the worst facing of physical and social adversities related to the experiences in sexuality; besides that the sexual act was better experienced by the elderly in a stable union and among those who live with their partners for five years or less when compared to the elderly who live together for over 20 years.

Finally, it was concluded that there was a moderate negative correlation between sexuality and severe depressive symptoms. It is emphasized that, due to the importance of the theme, the development of further investigations is suggested, especially with a longitudinal approach, to investigate possible causal relations between the experiences of sexuality and depressive symptoms among the elderly, since the association of sexual intercourse with severe depressive symptoms was verified.

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