



# Effects of experiences in sexuality on anxiety and quality of life of elderly people

*Efeitos das vivências em sexualidade na ansiedade e na qualidade de vida de pessoas idosas*  
*Efectos de las experiencias de sexualidad sobre la ansiedad y la calidad de vida de las personas mayores*

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

Lais Reis Siqueira<sup>2</sup>

Benedito Fernandes da Silva Filho<sup>3</sup>

Ângelo Bomfim Chaves<sup>4</sup>

Jailton Silva dos Santos<sup>4</sup>

Caroline Araújo Guedes<sup>4</sup>

Namie Okino Sawada<sup>2</sup>

1. Universidade de São Paulo, Escola de Enfermagem de Ribeirão Preto, Programa de Pós-Graduação em Enfermagem Fundamental. Ribeirão Preto, SP, Brasil.

2. Universidade Federal de Alfenas, Programa de Pós-Graduação em Enfermagem. Alfenas, MG, Brasil.

3. Universidade Estadual do Sudoeste da Bahia, Programa de Pós-Graduação em Enfermagem e Saúde. Jequié, BA, Brasil.

4. Universidade Estadual do Sudoeste da Bahia. Jequié, Bahia, Brasil.

## ABSTRACT

**Objective:** to analyze the effects of experiences in sexuality on anxiety and quality of life of elderly people. **Method:** this is a cross-sectional and analytical study developed with 550 elderly people. Validated instruments were used to obtain data on sexuality, anxiety and quality of life. The analysis was performed with the Kruskal-Wallis test and the Structural Equation Modeling with 95% confidence interval. **Results:** among the dimensions of sexuality, affective relationships and better coping with physical and social adversity exerted anxiety-reducing effects. In addition, sexual intercourse and better coping with physical and social adversities exerted effects of increased quality of life. **Conclusion and implications for practice:** health professionals can invest in sexuality, to be worked on in groups and individually, especially in the affective component, since it had a strong and positive effect on quality of life, and in physical and social adversity, which had a moderate and negative effect on anxiety.

**Keywords:** Geriatric Nursing; Health Promotion; Health of the Elderly; Mental Health; Public Health.

## RESUMO

**Objetivo:** analisar os efeitos das vivências em sexualidade na ansiedade e na qualidade de vida de pessoas idosas. **Método:** estudo transversal e analítico desenvolvido com 550 pessoas idosas. Foram utilizados instrumentos validados para a obtenção dos dados sobre sexualidade, ansiedade e qualidade de vida. A análise foi realizada com o teste de *Kruskal-Wallis* e a Modelagem de Equações Estruturais com intervalo de confiança de 95%. **Resultados:** dentre as dimensões da sexualidade, as relações afetivas e o melhor enfrentamento das adversidades física e social exerceram efeitos de redução da ansiedade. Além disso, o ato sexual e o melhor enfrentamento das adversidades física e social exerceram efeitos de aumento da qualidade de vida. **Conclusão e implicações para a prática:** os profissionais de saúde podem investir na sexualidade, a ser trabalhada de forma grupal e individual, especialmente no componente afetivo, visto que exerceu efeito forte e positivo sobre a qualidade de vida, e nas adversidades física e social, que exerceram efeito moderado e negativo sobre a ansiedade.

**Palavras-chave:** Enfermagem Geriátrica; Promoção da Saúde; Saúde do Idoso; Saúde Mental; Saúde Pública.

## RESUMEN

**Objetivo:** analizar los efectos de las experiencias en la sexualidad sobre la ansiedad y sobre la calidad de vida de los ancianos. **Método:** estudio transversal y analítico desarrollado con 550 ancianos. Se utilizaron instrumentos validados para obtener datos sobre sexualidad, ansiedad y calidad de vida. El análisis se realizó mediante la prueba de *Kruskal-Wallis* y el Modelado de Ecuaciones Estructurales con intervalo de confianza del 95%. **Resultados:** entre las dimensiones de la sexualidad, las relaciones afectivas y el mejor afrontamiento de las adversidades físicas y sociales ejercieron efectos reductores de la ansiedad. Además, el acto sexual y el mejor enfrentamiento de las adversidades físicas y sociales ejercieron efectos de aumento de la calidad de vida. **Conclusión e implicaciones para la práctica:** los profesionales de la salud pueden invertir en la sexualidad, para ser trabajada de forma grupal e individual, especialmente en el componente afectivo, ya que tuvo un efecto fuerte y positivo en la calidad de vida y en las adversidades físicas y sociales, que tuvo un efecto moderado y negativo sobre la ansiedad.

**Palabras clave:** Enfermería Geriátrica; Promoción de la Salud; Salud del Anciano; Salud Mental; Salud Pública.

### Corresponding author:

Edison Vitório de Souza Júnior.  
E-mail: edison.vitorio@usp.br

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## INTRODUCTION

According to Brazilian legislation,<sup>1</sup> an elderly person is an individual aged 60 years or more. Brazil is undergoing an intense and rapid process of population aging.<sup>2</sup> It is estimated that the number of elderly people in the country jumped from 2.6 million in 1950 to 29.9 million in 2020, and is expected to reach 72.4 million in 2100, which will correspond to 40% of the inhabitants.<sup>3</sup>

It is noteworthy that this phenomenon is global. Worldwide estimates indicate that, in 2030, one in six people will be 60 years old or older. Still in this perspective, the number of people in this age bracket will reach 2.1 billion in 2050, showing a worldwide growth from 12% in 2015 to 22% in 2050.<sup>4</sup>

It is noteworthy that aging is not a determining factor that makes the individual asexual. However, there are, in society, prejudices, myths, and taboos when the subject is the sexuality of the elderly person,<sup>5,6</sup> further strengthening the social stigma that considers these people incapable of enjoying their sexuality.<sup>7</sup> Still in this sense, because modern sexuality has its concept centered on the body and youth, and these two factors decline as the years go by, the elderly may feel inhibited to experience it, limiting themselves to a passive position of being only good grandparents to take care of their grandchildren, according to the social imperative.<sup>8</sup>

The understanding of sexuality must encompass multiple displays of behavior, cognition, and feelings, which evolve according to age and socio-cultural aspects.<sup>9,10</sup> In this context, sexuality can be understood as expressions of love, affection, companionship, touch, intimacy, affection, and other quantitative manifestations, including sexual activity itself. It is a source of pleasure and there are no scientific arguments to justify its denial, on the contrary, to deny and/or suppress sexuality may intensify the aging process and promote undesirable outcomes in mental health and Quality of Life (QoL) of the elderly.<sup>11</sup>

Among the aspects that can be studied in the field of mental health, anxiety stands out as an important public health problem<sup>12</sup> and is characterized by a natural reaction of the body against stressful agents.<sup>13</sup> It can be identified by the observation of different somatic, physiological, and psychological manifestations such as sleep disturbances, tremors, restlessness, fatigue, difficulty in concentrating,<sup>12</sup> sweating, tachycardia, dizziness, apprehension, mental discomfort,<sup>14</sup> insomnia, headache, tension, muscle pain, anguish, irritability, among others.<sup>15</sup>

It is a reaction that is associated with the limitations imposed by aging, putting the active elderly person in a passive position in relation to the performance of their daily activities. However, it is reported that old age is not the absolute cause that triggers anxiety and this psychopathology may manifest at any age group.<sup>15</sup> However, the prevalence of chronic diseases commonly diagnosed in old age, difficulty in interpersonal relationships and insufficient physical-social support increase anxiety symptoms in the elderly population.<sup>12</sup>

Social isolation, a common situation among this age group, has direct negative impacts on mental health, because social relationships are considered deep human mechanisms that evolve

along with neural, hormonal and genetic mechanisms. Thus, social isolation has unsatisfactory repercussions on cognition, mood, immunity, sleep and rest, and body weight, in addition to favoring an increase in cortisol levels, thus contributing to an increase in anxiety symptoms,<sup>16</sup> which, consequently, substantially burden the health services and worsen the individual's QoL.<sup>12</sup>

Because of the need to promote better quality in the aging process, QoL has been configured as an important health indicator to reorient care practices.<sup>17,18</sup> It is a broad and multidimensional term used to describe an individual's perception of the harmony existing in different contexts that are part of his/her life, such as physical health, adaptation to the environment, mental state, social relationships, self-care capacity,<sup>19</sup> as well as the existing relationship between internal and external factors with his/her lifestyle.<sup>20</sup>

In this sense, the World Health Organization (WHO) defines QoL as "an individual's perception of his position in life, in the context of the culture and value systems in which he lives and in relation to his goals, expectations, standards, and concerns".<sup>21:1570</sup>

In this context, the creation and implementation of new low-tech strategies capable of improving the QoL of the elderly and reducing the impacts that anxiety causes at individual and social levels are required. Among the strategies, the approach to sexuality, especially in primary care, can be an effective tool to achieve this goal.

Given this context, the hypothesis of this study is that sexuality has a strong and negative effect on anxiety (inversely proportional effect) and a strong and positive effect on QoL (directly proportional effect). If a statistical association is evidenced, this study may contribute to the reorientation of care practices in the increase of discussions and encouragement of sexuality as a way to promote and protect the health of the elderly. Thus, this study aimed to analyze the effects of experiences in sexuality on anxiety and QoL of elderly people.

## METHOD

This is a cross-sectional, analytical study.<sup>22</sup> The study was developed through the Internet, with participants from all over Brazil: North, Northeast, Center-West, Southeast and South.

To define a representative quantity of elderly people, we used the sample calculation, adopting infinite population, confidence level of 95% ( $z_{\alpha/2} = 1.96$ ), margin of error of 5% ( $\alpha=0.05$ ) and conservative proportion of 50%, which corresponded to a minimum sample size of 385 participants. However, considering the possible losses due to insufficient responses, we added more than 40% to the sample, totaling a final sample size of 550 participants recruited according to the consecutive non-probability sampling technique.

The inclusion criteria were elderly people aged 60 years or older, of both genders (male and female), married, in a stable union or with a steady partner, due to the requirement of the instrument on sexuality to assess the relationship between the individual and his/her spouse,<sup>23</sup> having access to the internet and an active account on the social network Facebook because it is a popular

network, easy to navigate and has relevant tools that allowed us to conduct the study, such as, for example, the boosting of posts. The exclusion criteria were hospitalized elderly people, residents in long-stay institutions or similar, self-declared dependents for activities of daily living, and with neurodegenerative pathologies that made it impossible to understand the instruments.

Exclusion criteria were controlled by means of four dichotomous questions (yes/no) at the beginning of the questionnaire. All participants who fully denied the screening questions were considered eligible to continue in the study. It is worth noting that, in this study, no instruments were applied to track cognitive changes in the elderly. This procedure is justified by the existence of skills that allow them to participate actively in social networks through technological equipment such as smartphones, computers, laptops, tablets, among others.

Data collection occurred between July and October 2020, exclusively online, through the social network Facebook. The researchers created a Facebook page for the development of scientific research and dissemination of information on health, sexuality and QoL of older people, with a focus on health promotion and strengthening of active aging.

On this page, a personalized invitation was published containing the research title, researchers and institution responsible, inclusion criteria, contact information, and a hyperlink directing participants directly to the data collection instruments. These instruments were structured in the Google Forms platform in four sections: 1) bio-sociodemographic; 2) sexuality; 3) anxiety and 4) QoL.

The first section was elaborated to obtain the bio-sociodemographic data with the objective of tracing the profile of the participants. Information was collected on age, gender, marital status, religion, ethnicity, education, sexual orientation, whether they have already received guidance on sexuality from health professionals, whether they have children, and the geographic location.

The second section collected data regarding the participants' sexuality by means of the Elderly Affective and Sexual Experiences Scale (EASES), constructed and validated in Brazil, obtaining satisfactory psychometric properties to be applied to the Brazilian elderly population.<sup>23</sup> This scale has three dimensions: sexual act, affective relationships, and physical and social adversities, totaling 38 items, with five Likert-type response possibilities, ranging from one (never) to five points (always). This instrument does not preconize a cut-off point. Its analysis considers the highest score as an indicator of better experience of sexuality and, conversely, the lowest score indicates the worst experience of sexuality by the elderly.<sup>23</sup> It is noteworthy that the dimension physical and social adversity contains negative questions and, therefore, the values were recoded to make it similar to the other dimensions in relation to the statistical analysis direction.

The third section collected data on participants' anxiety using the instrument validated in Brazil, the Beck Anxiety Inventory. It is an instrument composed of 21 questions in which the individual informs the level of severity of symptoms divided into four levels: zero (no symptoms); one (mild); two (moderate) and three (severe).

The final score ranges from zero to 63 points, which allows the classification of symptom intensity into minimal (zero to seven points), mild (eight to 15 points), moderate (16 to 25 points), or severe (26 to 63 points).<sup>24</sup>

Finally, the fourth section was developed with the validated and standardized instrument called World Health Organization Quality of Life - Old (WHOQOL-Old).<sup>25</sup> The WHOQOL-Old is a specific module for the elderly population composed of 24 questions distributed in six facets: sensory abilities; autonomy; past, present and future activities; social participation; death and dying and intimacy. The answers are structured in likert type scale (one to five points), the total score ranges from 24 to 100 points and there is no cutoff point to determine QoL, being interpreted in the perspective that the higher/lower score indicates, respectively, better/worse QoL.

In this study, there was a dismissal of the generic QoL instrument due to the number of questions considered excessive by the participants, who reported this impasse in the comments of the survey, and there were, therefore, withdrawals in the participation. However, we inform that, from the psychometric standpoint, this fact does not invalidate the results of this study, because, during the validation process of the EASES,<sup>23</sup> the author found a strong correlation with the WHOQOL-Old (0.64), and the EASES predicts 41% of this instrument, showing a sample slope between 0.24 and 0.33,  $F(1.198) = 11.74$  and  $p\text{-value} < 0.001$  (95%CI), thus demonstrating that the results were not due to sampling error.<sup>23</sup>

It is worth mentioning that, before the participants had access to the questionnaire, their individual e-mail address was required so that the researchers could have more control over the data and identify possible multiple answers by the same participant, which did not occur in this study.

The data was transferred to the statistical software Statistical Package for the Social Sciences (SPSS), version 25.0. In this software, data distribution analysis was performed, with evidence of non-normal distributions by the Kolmogorov-Smirnov test ( $p < 0.001$ ), descriptive analysis (absolute and relative frequencies) for categorical variables and the association test (Kruskal-Wallis) to analyze associations between experiences in sexuality and QoL according to the intensity of anxiety symptoms. For all statistical analyses a 95% confidence interval was adopted ( $p < 0.05$ ).

Structural equation modeling (SEM) was used for the multivariate analysis of the data by the statistical software STATA. Thus, in the proposed model, a latent variable with indicators with factor loading  $> 0.50$  and four observed variables were included. The latent QoL was formed by the domains autonomy (DOM2), past present and future activity (DOM3), social participation (DOM4) and intimacy (DOM6), while the observable variables were the domains sexual act (EASES1), effective relationships (EASES2) and physical and social adversity (EASES3) and anxiety was measured by the Beck (ANX).

The interpretation of the results is given by the Standardized Coefficients (SC), together with their respective 95% confidence

intervals (95%CI), as follows: small effect (SC=0.10); medium effect (SC=0.30) and strong effect (SC>0.50).<sup>26</sup>

The following fit indices were used to attest to the model's adequacy: the Comparative Fit Index (CFI) and the Tucker-Lewis index (TLI), with values closer to one indicating better fit;<sup>27</sup> the Adjusted Goodness-of-Fit Index (AGFI), ranging from zero to one, with values  $\geq 0.90$  indicating well-fitting models;<sup>28</sup> the Standardized Root Mean Square Residual (SRMR), with a value  $< 0.08$  indicating a good fit and  $< 0.10$ , an acceptable fit<sup>26,29</sup> and the Root-Mean-Square Error of Approximation (RMSEA), with its 90% confidence interval (CI90%) and the following interpretation - perfect fit (RMSEA=0); good fit (RMSEA  $< 0.05$ ); moderate fit (RMSEA= 0.05-0.08); poor fit (RMSEA=0.08-0.10) and inadequate fit (RMSEA $> 0.10$ ).<sup>30</sup>

Although this study presents a cross-sectional design, the statistical method employed allows the measurement of direct and indirect effects of one variable on another,<sup>27</sup> besides allowing the analysis of the acceptability of theoretical models that explain relationships among several constructs.<sup>29</sup>

This study was approved in 2020 by the Research Ethics Committee of the Ribeirão Preto School of Nursing of the University of São Paulo (EERP/USP) under Opinion No. 4.319.644. All

ethical recommendations were followed, according to Resolution 466/2012 of the National Health Council, and the participants received the second copy of the Informed Consent Form by personal e-mail in the form of hidden delivery, in order to preserve the identity of those involved.

## RESULTS

Table 1 shows the bio-sociodemographic variables of the participants, showing a higher prevalence of elderly men (68.0%), white (64.2%), with high education (73.2%) (High School + College), married (60%), living with their spouse for more than 20 years (56%), Catholic (49.3%), living in the Southeast region of the country (45.1%), and who have never received guidance on sexuality from health professionals (76.7%).

According to Table 2, it is noted that increased intensity of anxiety symptoms is significantly associated with decreased sexuality and QoL scores. It is also observed that, within the field of sexuality, affective relationships are better experienced in detriment of the sexual act. However, the differences in scores between these two dimensions were not very discrepant, differing by only one point between participants with minimal, mild and severe anxiety.

**Table 1.** Biosociodemographic variables. Ribeirão Preto, São Paulo, Brazil (n=550).

VARIABLES	N	%	VARIABLES	n	%
<b>Sex</b>			<b>Marital status</b>		
Male	374	68.0	Married	330	60.0
Female	176	32.0	Stable union	119	21.6
<b>Age (years)</b>			With fixed partner	101	18.4
60 – 64	273	49.6	<b>Time Living Together</b>		
65 – 69	160	29.1	≤ 5 years	111	20.2
70 – 74	85	15.5	Between 6 and 10 years	46	8.4
75 – 79	25	4.5	Between 11 and 15 years	53	9.6
≥ 80 years	7	1.3	Between 16 and 20 years	32	5.8
<b>Education</b>			> 20 years	308	56.0
Primary	51	9.3	<b>Lives with children</b>		
Elementary	96	17.5	Yes	170	30.9
Highschool	204	37.0	No	354	64.4
Higher education	199	36.2	Does not have children	26	4.7
<b>Ethnicity</b>			<b>Have you ever had counseling about sexuality</b>		
White	353	64.2	Yes	128	23.3
Yellow	11	2.0	Never	422	76.7
Black	31	5.6	<b>Sexual orientation</b>		
Brown	143	26.0	Heterosexual	475	86.4
Indigenous	2	0.4	Homosexual	16	2.9
Does not know	10	1.8	Bisexual	9	1.6

**Table 1.** Continued...

VARIABLES	N	%	VARIABLES	n	%
<b>Religion</b>			Others	50	9.1
Catholic	271	49.3	<b>Region of Brazil</b>		
Protestant	77	14.0	North	43	7.8
Spiritist	72	13.1	Northeast	79	14.4
African origin	11	2.0	Mid-west	66	12.0
Others	58	10.5	Southwest	248	45.1
No religion	61	11.1	South	114	20.7

**Table 2.** Comparison between participants' sexuality and QoL according to anxiety symptoms. Ribeirão Preto, São Paulo, Brazil (n=550).

Variables	ANXIETY				Value of p
	MINIMUM	LIGHT	MODERATE	SEVERE	
	Median (IQ)	Median (IQ)	Median (IQ)	Median (IQ)	
<b>Sexuality</b>					
AS	76.0 (68.8-82.0)	68.0 (55.0-77.0)	68.0 (58.00-76.7)	60.0 (48.0-73.0)	<0.001*
RA	77.0 (67.0-82.0)	69.0 (56.0-77.0)	68.0 (56.25-77.0)	61.0 (48.5-71.5)	<0.001*
AFS	9.0 (7.0-13.0)	9.0 (7.0-11.0)	8.0 (6.00-9.0)	6.0 (4.0-9.0)	<0.001*
SG	159.0 (143.0-169.0)	145.0 (123.0-161.0)	144.0 (119.25-159.7)	128.0 (104.5-153.0)	<0.001*
<b>Quality of life</b>					
HS	87.5 (75.0-93.7)	75.0 (62.5-81.2)	68.7 (56.2-81.2)	56.2 (43.7-75.0)	<0.001*
AUT	75.0 (62.5-81.2)	68.7 (56.2-75.0)	62.5 (50.0-68.7)	56.2 (37.5-68.7)	<0.001*
APPF	75.0 (56.2-81.2)	62.5 (50.0-75.0)	56.2 (39.0-68.7)	43.7 (31.2-62.5)	<0.001*
OS	75.0 (56.2-81.2)	62.5 (43.7-75.0)	56.2 (43.7-68.7)	43.7 (31.2-53.1)	<0.001*
MM	81.2 (62.5-93.7)	62.5 (43.7-75.0)	50.0 (25.0-68.7)	37.5 (21.8-68.7)	<0.001*
INT	75.0 (68.7-87.5)	68.7 (50.0-75.0)	62.5 (43.7-75.0)	50.0 (31.2-75.0)	<0.001*
QVG	75.0 (66.6-83.3)	63.5 (55.2-69.7)	58.3 (48.9-64.5)	47.9 (41.6-57.2)	<0.001*

\* Statistical significance by Kruskal-Wallis test (p<0.05).

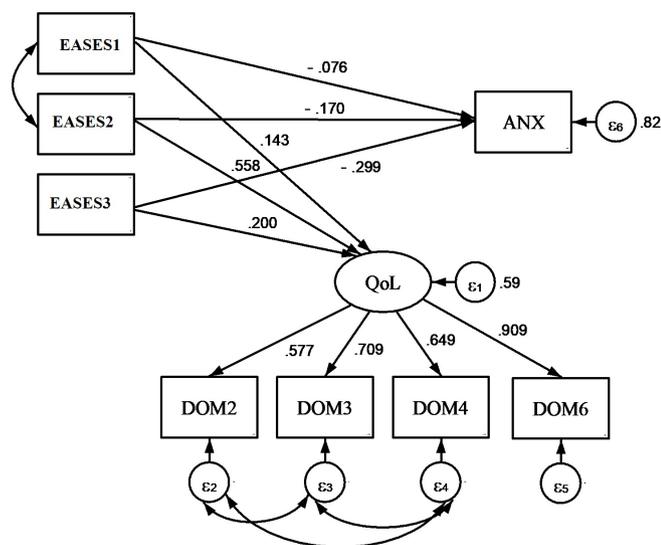
In the measurement model, the latent QoL did not show adequate factor loading (>0.5) for the domains sensory abilities (DOM1) and death and dying (DOM5). Together with anxiety and sexuality, the latent composed the proposed structural model (Figure 1). It was possible to evidence the good adjustment of the model by evaluating the adjustment indexes RMSEA (0.07 [95%CI 0.05-0.08]), TLI (0.952), CFI (0.979) and SRMR (0.03).

It is noted in Table 3 that, among the domains of sexuality and anxiety, EASES2 exerts weakly significant, negative effect on anxiety (CP= -0.170; p=0.011). EASES3 also exerted a negative, significant, moderate magnitude effect on anxiety (CP=-0.299; p<0.001). Similarly, on QL, the effects were weak and positive for EASES1 (CP=0.143; p=0.037) and EASES3 (CP=0.200;

p<0.001), as well as effect with strong magnitude for EASES2 (CP=0.558; p<0.001).

## DISCUSSION

The participants of this study present peculiar characteristics that are not often observed in most elderly people, since there was a higher prevalence of males (68.0%), whites (64.2%) and with complete High School Education (37.0%). These characteristics can be explained by the fact that data collection was online, which, in a way, meant that the participation of the elderly in this study was restricted to the literate and those with higher socioeconomic status, which allowed them access to the Internet and electronic technologies.



**Figure 1.** Structural equation model for sexuality (EASES1, EASES2, EASES3), Quality of Life (QoL) and anxiety (ANX). Ribeirão Preto, São Paulo, Brazil (n=550).

**Table 3.** Standardized Coefficients (SCT) of structural equation modeling between sexuality, anxiety and QoL. Ribeirão Preto, São Paulo, Brazil (n=550).

	CP	95%CI	p
<b>Measurement model</b>			
DOM 2 ← QoL	0.577	0.517 – 0.637	<0.001
DOM 3 ← QoL	0.709	0.659 – 0.760	<0.001
DOM 4 ← QoL	0.649	0.598 – 0.701	<0.001
DOM 6 ← QoL	0.909	0.876 – 0.941	<0.001
<b>Structural model</b>			
EASES1 → ANX	-0.076	-0.205 – 0.054	0.337
EASES2 → ANX	-0.170	-0.281 – -0.060	0.011
EASES3 → ANX	-0.299	-0.367 – -0.230	<0.001
EASES1 → QoL	0.143	0.030 – 0.257	0.037
EASES2 → QoL	0.558	0.445 – 0.670	<0.001
EASES3 → QoL	0.200	0.142 – 0.257	<0.001

It was found in this study that increased intensity of anxiety symptoms was significantly associated with decreased sexuality and QoL scores of participants in all dimensions assessed.

The only current study<sup>31</sup> that came close to this investigation, by using the same EASES instrument to assess sexuality, found a negative and statistically significant correlation between the sexual act dimension of the EASES and participants' anxiety.<sup>31</sup> The authors found no significant correlations between anxiety and the other dimensions that make up the EASES, therefore diverging from the results of this study. This divergence may

be due to a limitation of the study cited, in which there was the inclusion of elderly participants with no fixed partner, as the authors themselves elucidated in the text, which makes the results fragile.

It was also observed that, within the field of sexuality, affective relationships were better experienced in detriment of the sexual act, corroborating other research<sup>31</sup> which also identified higher scores in the affective dimension of sexuality, reaffirming the evidence that affectivity seems to be experienced with greater intensity in old age when compared to the sexual act. This is an important aspect that deserves to be encouraged during health consultations, because, according to the results of this study, the affective relationships of sexuality exert positive, significant and strong effects on the QoL of the elderly.

However, the fact that affective relationships are better experienced in old age is not valid to reinforce the negative stereotype that reproduces the idea of the asexual elderly person, since, according to a study,<sup>32</sup> 83.0% of the elderly consider sexual activity important for QoL and 78.0% state that there is no age limit to experience it. In addition, the sexually inactive participants revealed a desire to change this situation, which reflects the permanence of sexual interest in old age.<sup>32</sup>

Furthermore, the results of this study corroborate this evidence, since the sexual act dimension of sexuality exerted a positive and statistically significant effect on QoL, but with a weak magnitude. This means that increasing sexual activity in old age has beneficial effects on increasing the QoL of elderly people. There are no other effects studies to compare these results. The investigation<sup>33</sup> that most closely matched this study used correlation analysis and identified that all dimensions of sexuality were significantly correlated with the QoL of elderly participants. The authors found positive correlations between the sexual act and affective relationships with all facets of QoL, highlighting the facet intimacy, which had the highest correlation coefficient, both for the sexual act dimension ( $p= 0.546$ ;  $p<0.001$ ) and for affective relationships ( $p= 0.592$ ;  $p<0.001$ ). This means that these variables have a directly proportional behavior, that is, the increase in affective and sexual experiences is correlated to the increase in QoL.<sup>33</sup>

In fact, sexuality is directly related to the perception of QoL, whose concept involves not only the health situation of the elderly person, but covers his/her image in the physical, psychological and social dimensions.<sup>32</sup>

This inference points to the results of this study as something unprecedented, because the dimension of physical and social adversity had a negative, significant and moderate effect on anxiety, and a weak, positive and significant effect on QoL. This dimension assesses whether older people perceive their health as an obstacle to sexual experiences, if there is discomfort with the changes resulting from aging, and if they are afraid of being victims of prejudice due to decisions to experience their sexuality.<sup>23</sup> Therefore, the results of this study show that the effects exerted by better coping with physical and social adversities related to sexuality act to reduce anxiety symptoms and increase older people's perception of QoL.

According to an investigation,<sup>33</sup> the dimension of physical and social adversities was also statistically correlated with all facets of QoL, however, with negative correlations, highlighting the facet of social participation with the highest correlation coefficient ( $\rho = -0.339$ ;  $p < 0.001$ ). These results can be interpreted from the perspective that the increase of such adversities is correlated with the reduction of QoL of the elderly, thus assuming an inversely proportional behavior.<sup>33</sup>

It is noteworthy that this study is pioneering in the investigation of the effects of experiences in sexuality on anxiety and QoL of older people. This is a population in constant growth worldwide, which requires preparation of professionals and health services to meet their bio-psychosocial and spiritual needs, which includes experiences in sexuality.

However, it is observed in the care practice that the sexuality of the elderly is not often addressed in health services, which can be seen by the fact that 76.7% of participants in this study have never received guidance on sexuality by health professionals. This may reflect the fragmentation of care, which prioritizes biological aspects and ignores the need for holistic care.

It is informed that this modality of assistance to the elderly people must be restructured to contemplate all its integrality, mainly in what concerns sexuality, because, according to a Brazilian study,<sup>33</sup> elderly people who receive guidance on sexuality from health professionals have better experiences in sexual and affective aspects, in addition to having better QoL and better ability to cope with physical and social adversities related to sexuality. Finally, it is noteworthy that, due to the importance of sexuality in the lives of the elderly, it is encouraged, even among dependent elderly people,<sup>34</sup> who live with some type of dementia<sup>11</sup> and in palliative care.<sup>35</sup>

## CONCLUSION AND IMPLICATIONS FOR PRACTICE

Sexuality exerted relevant clinical effects that may subsidize care practices focused on the health of the elderly. Health professionals, especially those belonging to Geriatric Nursing, can invest in sexuality to be worked in group and individual ways, especially in the affective component, since it exerted a strong positive effect on QoL, besides physical and social adversity, which exerted a moderate negative effect on anxiety.

Thus, some implications for practice can be drawn from these results. First, it concerns the appreciation and encouragement of affection among the elderly, which proved to be much more valued and experienced by the participants of this study. Furthermore, it is necessary that health professionals create strategies to help them face the physical and social adversities that hinder their experiences of sexuality. The use of groups can be an effective strategy, because it will enable the sharing of experiences and, consequently, the perception that the feelings are common to other people of the same age. As a result, the prejudices and feelings of shame that exist among the elderly about the theme will be weakened.

It is noteworthy that this study has limitations. The first limitation concerns the non-probabilistic design and, therefore, the impossibility of generalizing the results. The second limitation refers to the selection of elderly people restricted to those who have access to the internet and in only one social network. Nevertheless, this study contributes by providing current and unprecedented evidence that ratifies the permanence of sexual desires in old age, in addition to the relevant clinical effects that sexuality exerted on anxiety and QoL of the elderly. Given this, the data can be used for the development of public policies and local actions to stimulate sexuality in old age as an innovative strategy to promote and protect the health and QoL of the elderly.

It is suggested that further research on the theme be developed, especially investigations with a longitudinal and/or experimental design, which really analyze sexuality and its influence on the several variables that make up the elderly person. It is also suggested that, in the fields of professional activity, especially in primary care, *in loco* intervention studies be developed to identify, in more depth, the needs of the elderly and even create devices that direct the assistance in sexuality to this population group.

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## AUTHOR'S CONTRIBUTIONS

Study design. Edison Vitório de Souza Júnior. Namie Okino Sawada.

Data acquisition. Edison Vitório de Souza Júnior. Namie Okino Sawada.

Data analysis. Lais Reis Siqueira. Benedito Fernandes da Silva Filho. Ângelo Bomfim Chaves. Jailton Silva dos Santos. Caroline Araújo Guedes.

Interpretation of the results. Edison Vitório de Souza Júnior. Lais Reis Siqueira. Benedito Fernandes da Silva Filho. Ângelo Bomfim Chaves. Jailton Silva dos Santos. Caroline Araújo Guedes. Namie Okino Sawada.

Writing and critical revision of the manuscript. Edison Vitório de Souza Júnior. Lais Reis Siqueira. Benedito Fernandes da Silva Filho. Ângelo Bomfim Chaves. Jailton Silva dos Santos. Caroline Araújo Guedes. Namie Okino Sawada.

Approval of the final version of the article. Edison Vitório de Souza Júnior. Lais Reis Siqueira. Benedito Fernandes da Silva Filho. Ângelo Bomfim Chaves. Jailton Silva dos Santos. Caroline Araújo Guedes. Namie Okino Sawada.

Responsibility for all aspects of the content and integrity of the published article. Edison Vitório de Souza Júnior. Lais Reis Siqueira. Benedito Fernandes da Silva Filho. Ângelo Bomfim Chaves. Jailton Silva dos Santos. Caroline Araújo Guedes. Namie Okino Sawada.

## ASSOCIATE EDITOR

Cristina Lavareda Baixinho 

## SCIENTIFIC EDITOR

Marcelle Miranda da Silva 

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