



QUALITY OF LIFE OF HOSPITALIZED OCTOGENARIANS

Meiry Fernanda Pinto Okuno¹ 

Anderson da Silva Rosa¹ 

Maria Carolina Barbosa Teixeira Lopes¹ 

Cássia Regina Vancini Campanharo¹

Ruth Ester Assayag Batista¹ 

Angélica Gonçalves Silva Belasco¹

¹Universidade Federal de São Paulo, Escola Paulista de Enfermagem. São Paulo, São Paulo, Brasil.

ABSTRACT

Objective: to characterize socio-demographic and economic profiles, as well as to evaluate the quality of life of hospitalized octogenarians.

Method: cross-sectional study with 128 hospitalized octogenarians. Instruments from the World Health Organization were used to evaluate the quality of life. Spearman correlation coefficient, student's t-test and analysis of variance were used to correlate the studied variables with the quality of life of octogenarians.

Results: the longer the hospitalization time, the higher the psychological score ($p=0.0126$), and the higher the scores in the past, present and future activity domain ($p = 0.0485$). The higher the age, the lower the score in the past, present, and future activity domain ($p=0.0480$). The higher the number of octogenarian morbidities, the lower the score in the social relation domain.

Conclusion: it is highly important that care for the hospitalized elderly is planned and implemented, taking into account the factors that interfere in a positive and negative way in their quality of life.

DESCRIPTORS: Elderly. Aging. Geriatric nursing. Nursing care. Quality of life. Hospitalization.

HOW CITED: Okuno MFP, Rosa AS, Lopes MCBT, Campanharo CRV, Batista REA, Belasco AGS. Quality of life of hospitalized octogenarians. *Texto Contexto Enferm* [Internet]. 2019 [cited YEAR MONTH DAY]; 28:e20180207. Available from: <http://dx.doi.org/10.1590/1980-265X-TCE-2018-0207>

QUALIDADE DE VIDA DE OCTOGENÁRIOS HOSPITALIZADOS

RESUMO

Objetivo: caracterizar os perfis sociodemográfico e econômico, bem como avaliar a qualidade de vida de octogenários hospitalizados.

Método: estudo transversal realizado com 128 octogenários internados. Foram aplicados instrumentos da Organização Mundial da Saúde para avaliar a qualidade de vida. Coeficiente de correlação de Spearman, teste t de Student e análise de variância foram utilizados para correlacionar as variáveis estudadas com a qualidade de vida dos octogenários.

Resultados: quanto mais longo o tempo de hospitalização, maior o escore no domínio psicológico ($p=0,0126$), e maiores os escores dos domínios atividades passadas, presentes e futuras ($p=0,0485$). Quanto maior a idade, menor o escore no domínio atividades passadas, presentes e futuras ($p=0,0480$). Quanto maior o número de morbidades dos octogenários, menor o escore no domínio relações sociais.

Conclusão: evidencia-se a importância de que os cuidados aos idosos hospitalizados sejam planejados e implementados, levando em consideração os fatores que interferem de forma positiva e negativa em sua qualidade de vida.

DESCRITORES: Idoso. Envelhecimento. Enfermagem geriátrica. Cuidados de enfermagem. Qualidade de vida. Hospitalização.

CALIDAD DE VIDA DE OCTOGENARIOS HOSPITALIZADOS

RESUMEN

Objetivo: caracterizar los perfiles sociodemográficos y económicos, así como evaluar la calidad de vida de octogenarios hospitalizados.

Método: estudio transversal realizado con 128 octogenarios internados. Se aplicaron los instrumentos de la Organización Mundial de la Salud para evaluar la calidad de vida. Se utilizaron el coeficiente de correlación de Spearman, el test t de Student y el análisis de la variación para correlacionar las variables estudiadas con la calidad de vida de los octogenarios.

Resultados: cuanto más prolongado sea el tiempo de hospitalización, mayor será el índice en el dominio psicológico ($p=0,0126$), y mayores los de las actividades pasadas, presentes y futuras ($p=0,0485$). Cuanto mayor sea la edad, menor será el índice de dominio actividades pasadas, presentes y futuras ($p=0,0480$). Cuanto mayor sea el número de morbilidades de los octogenarios, menor será el índice en el dominio relaciones sociales.

Conclusión: se evidencia la importancia de que los cuidados a los ancianos hospitalizados sean planificados e implementados, teniendo en cuenta los factores que interfieren de forma positiva y negativa en su calidad de vida.

DESCRIPTORES: Anciano. Envejecimiento. Enfermería geriátrica. Cuidados de enfermería. Calidad de vida. Hospitalización.

INTRODUCTION

The world's population has grown rapidly over the past 50 years, with increased life expectancy and reduced birth rates.¹ It is projected that, in the next two decades, the elderly will exceed 30 million people, corresponding to 13% of the world's population. Individuals who are 80 years of age, octogenarians or older represent the world's fastest growing age group. In Brazil, 14.4% of the elderly are octogenarians, representing 1.5% of the population.²

With the increase in the number of elderly people, health professionals increasingly deal with these patients, who suffer from multiple chronic diseases. This scenario poses challenges to the safe care provided by these professionals during care. The intense use of health services by the elderly puts them at greater risk for fragmented or often poor quality care. Once hospitalized, this population is at greater risk of poor outcomes, such as readmission, extended hospital stay, functional decline, iatrogenic complications, and admission in nursing homes.³ For many elderly, hospitalization is followed by a frequently irreversible decline in functional status and quality of life (QOL).³

The organization and delivery of hospital care is often fragmented, uncoordinated, and duplicated, which negatively affects patients' QOL. Since a substantial number of elderly people suffer from a mix of problems in several scenarios of their lives, protecting their QOL does not refer only to physical health, but also involves social and psychological wellness.³

This population is often vulnerable and has complex and continuous health needs; faces difficulties in everyday life; and requires a combination of services provided sequentially or simultaneously by several providers and practitioners to restore health. The provision of health care and social services at the right time and at the appropriate place is essential for the recovery of these patients. Care for the elderly must be integrated, holistic, and personalized, encompassing the total care process. This approach improves the quality of service and offers optimized services. The provision of integrated care makes the elderly feel safer because it allows the patient to be involved in the planning of their care and enables a more efficient communication among health professionals. As a result, length of hospital stay tends to decrease, as well as the complications.³

Studies have shown that the elderly's QOL is directly associated with socioeconomic, clinical, religious, and social support factors.⁴ The understanding of the relationship between these elements proves useful to support health actions and clinical behaviors that minimize the impact of these factors on their lives.

The present study aimed to characterize socio-demographic and economic profiles, as well as to evaluate the quality of life of hospitalized octogenarians.

METHOD

Epidemiological, cross-sectional, and analytical study carried out at the clinical and surgical units and in the emergency department of a teaching hospital linked to a federal university in the State of São Paulo, Southeastern Brazil. Data collection took place from June 2016 to April 2017.

A total of 128 elderly people were included according to these criteria: with at least 3 days of hospitalization,⁵ aged 80 years and older, who were able to understand and answer to the questionnaires, and who did not have a record of dementia in medical records. All agreed to participate in the study and signed the Free and Informed Consent.

The sample size was calculated using the stratified probabilistic sampling method proportional to the average number of patients from 80 years of age hospitalized in the six months prior to the study. The calculation considered a confidence level $\geq 80\%$ and alpha of 5%, based on the characteristics of age, sex, schooling, marital status, skin color, occupation, days of hospitalization, family income,

comorbidity, caregiver, religion, and support network in the community. The result indicated the need for the study to include 100 patients to achieve the proposed goals.

To obtain the data, a structured questionnaire was used with information on age, sex, schooling, marital status, occupation, days of hospitalization, family income, caregiver, religion, morbidity, and support network in the community

Instruments of the World Health Organization were used aimed at the evaluation of the QOL: the World Health Organization Quality of Life for Older Persons (WHOQOL-OLD), to be used in the elderly population, and the World Health Organization Quality of Life-Bref (WHOQOL-BREF), generic instrument for the evaluation of QOL in a short version. Both instruments were translated into Portuguese and validated for use in the Brazilian elderly population.⁶⁻⁷

The WHOQOL-OLD is composed of 24 items divided into six domains (sensorial functioning; autonomy; past, present and future activities; social participation; death and dying; and intimacy). The final scores for each domain can range from zero to 100 points. The closer to 100, the better the QOL.⁶

The WHOQOL-BREF has 26 items. The first two questions refer to self-perception of QOL and health satisfaction. The remaining 24 questions represent each of the 24 facets that make up the original instrument, divided into four domains: physical, psychological, social relations, and environment. The final scores for each domain can range from zero to 100 points. The closer to 100, the better the QOL.⁷

On a daily basis, the list of patients aged 80 years and older admitted to clinical, surgical, and emergency services at the hospital was requested from the hospitalization department. Then one of the researchers went to each place and checked the charts to verify the octogenarian's ability to understand and answer to the questionnaires and survey instruments and whether they had been hospitalized for at least three days. Patients were then contacted to check whether they fulfilled the other inclusion criteria. All the elderly aged 80 years and older who met the inclusion criteria were approached and invited to be part of the study. When they agreed, they were interviewed individually. The instrument was read by the researcher in a single moment, with an average duration of 40 minutes.

A descriptive analysis was used for socio-demographic, clinical, and economic characterization, and to inform whether they had caregivers, religion and support network in the community. For the continuous variables, mean, standard deviation, median, minimum, and maximum were calculated, and for the categorical variables, frequency and percentage variables. Spearman correlation coefficient was used to correlate QOL with age, days of hospitalization, and number of comorbidities. The Student's t-test was used to correlate QOL with skin color, caregiver, morbidities, religion, and community support. In order to correlate QOL with family income, the analysis of variance was used. A significance level of $p < 0.05$ was considered, and the program used for the analysis was the Statistical Package for the Social Sciences, version 19.

RESULTS

The mean age of the octogenarians ranged from 80 to 95 years. Days of hospitalization ranged from 3 to 42 days. The majority were female (81; 63.30%), white (96; 75.00%), widow (68; 53.1%) with caregiver (105; 82.00%), were religious (125; 97.70%) and reported morbidities (121, 94.50%), the most prevalent being systemic arterial hypertension (121, 94.50%), *diabetes mellitus* (49; 38.30%) and heart disease (46; 35.90%). The majority of the population was retired or pensioner (121, 94.50%), illiterate or had incomplete Elementary and Middle School (66; 51.60%), with monthly family income between one and two minimum wages, and with no support network in the community (86, 67.20%).

Table 1 shows that the domains of the WHOQOL-BREF and WHOQOL-OLD that were most affected were, respectively, physical domain and autonomy, which scored below 50.

The higher the days of hospitalization, the higher the score in the psychological domain ($p=0.0126$) of WHOQOL-BREF; the scores of past, present and future activity ($p=0.0485$) domain of WHOQOL-OLD was also higher. The higher the age, the lower the score in the domain past, present and future activities ($p=0.0480$).

The higher the number of octogenarian morbidities, the lower the score in the social relations domain of the WHOQOL-BREF ($p=0.0269$).

Table 2 shows that the elderly with support network in the community had significantly higher scores in the physical ($p=0.0005$), psychological ($p=0.0002$) and environment ($p=0.0179$) domains of the WHOQOL-BREF when compared to those without support network.

Table 1 – Scores of the domains of World Health Organization Quality of Life-Bref (WHOQOL-BREF) and World Health Organization Quality of Life for Older Persons (WHOQOL-OLD) of hospitalized octogenarians ($n=128$). São Paulo, SP, Brazil, 2016-2017

Domains of the WHOQOL-BREF	mean (SD*)	Domains of the WHOQOL-OLD	mean (SD*)
Physical	45.06 (15.67)	Sensory functioning	51.03 (23.12)
Psychological	58.40 (15.48)	Autonomy	48.73 (20.46)
Social relationships	65.89 (15.94)	Past, present, and future activities	60.40 (17.45)
Environment	57.06 (11.53)	Social participation	53.32 (19.45)
		Death and dying	57.13 (28.61)
		Intimacy	69.97 (18.11)

*SD = standard deviation.

Table 2 - Correlation between the domains of the World Health Organization Quality of Life-Bref (WHOQOL-BREF) and variables of hospitalized octogenarians evaluated ($n=128$). São Paulo, SP, Brazil, 2016-2017

Variables	Domains of the WHOQOL-BREF Mean (DP‡)			
	Physical	Psychological	Social relationships	Environment
Support network*				
Yes	51.87 (13.01)	65.58 (12.28)	69.05 (13.56)	60.49 (10.95)
No	41.74 (15.84)	54.89 (15.72)	64.34 (16.84)	55.38 (11.49)
P value	0.0005	0.0002	0.1524	0.0179
Morbidity†				
Yes	55.10 (22.86)	59.52 (18.28)	75.00 (19.84)	61.61 (16.51)
No	44.48 (15.08)	58.33 (15.38)	65.36 (15.63)	56.79 (11.21)
P value	0.0811	0.7126	0.0418	0.2844
Family income‡				
Up to R\$937.00	44.88 (14.15)	59.31 (15.84)	64.44 (15.15)	56.56 (10.77)
	44.57 (16.12)	55.69 (14.43)	62.18 (16.79)	54.69 (11.55)
Over R\$1,847.00	45.73 (16.39)	60.87 (16.21)	71.01 (14.35)	60.05 (11.54)
P value	0.9343	0.2390	0.0275	0.0675

*Student's t-test; †analysis of variance; ‡SD: standard deviation.

Patients without morbidities presented scores in the social relations domain ($p = 0.0418$) significantly higher than those with morbidities.

Interviewees with income above two minimum wages had a significantly higher social relations score ($p = 0.0275$) than those with income between one and two minimum wages.

The octogenarians with support network in the community had significantly higher scores in the sensory functioning ($p \leq 0.0001$); autonomy ($p = 0.0303$); past, present, and future activity ($p = 0.0005$); social participation ($p \leq 0.0001$); and death and dying ($p < 0.0001$) domains of the WHOQOL-OLD, when compared to those without support network. Patients with religion had significantly higher social participation scores ($p = 0.0168$) than those who reported having no religion.

The elderly with income up to a minimum wage had a higher score in the death and dying domain ($p = 0.0098$) when compared to those with income between one and two minimum wages. Participants with income higher than two minimum wages presented higher scores in the intimacy domain ($p = 0.0301$) when compared to those with income between one and two minimum wages. The interviewees without caregivers presented higher autonomy score ($p = 0.0304$) than those with caregivers, as shown in Table 3.

Table 3 - Domains of the World Health Organization Quality of Life for Older Persons (WHOQOL-OLD) correlated to the variables of the hospitalized elderly evaluated (n=128). São Paulo, SP, Brazil, 2016-2017

Variables	Domains of the WHOQOL-OLD Mean (DP‡)					
	Sensory functioning	Autonomy	Past, present, and future activities	Social participation	Death and dying	Intimacy
Support network*						
Yes	65.33 (18.79)	54.32 (22.32)	68.15 (14.98)	62.80 (17.02)	74.26 (24.51)	71.43 (16.11)
No	44.04 (21.86)	46.00 (19.03)	56.61 (17.40)	48.69 (18.96)	48.76 (26.79)	69.26 (19.06)
P value	<0.0001	0.0303	0.0005	<0.0001	<0.0001	0.5897
Religion*						
Yes	50.80 (23.18)	49.10 (20.56)	60.85 (17.12)	54.05 (18.99)	56.75 (28.71)	70.10 (18.20)
No	60.42 (21.95)	33.33 (3.61)	41.67 (25.26)	22.92 (15.73)	72.92 (21.95)	64.58 (15.73)
P value	0.4527	0.1882	0.1447	0.0168	0.3543	0.5622
Family income†						
Up to R\$937.00	51.46 (22.31)	48.33 (21.14)	59.17 (18.33)	51.67 (18.49)	65.83 (30.87)	69.17 (14.95)
R\$937.00-R\$1,874.00	50.96 (23.46)	48.08 (20.99)	57.09 (16.56)	51.68 (18.45)	48.20 (24.48)	66.23 (18.94)
Over R\$1,847.00	50.82 (23.74)	49.73 (19.81)	64.95 (17.25)	56.25 (21.16)	61.55 (29.23)	74.73 (18.30)
P value	0.9894	0.9180	0.0650	0.4165	0.0098	0.0301
Caregiver*						
Yes	50.60 (23.25)	46.90 (20.66)	60.00 (17.69)	52.62 (19.55)	56.90 (29.12)	70.30 (17.72)
No	52.99 (22.92)	57.07 (17.61)	62.23 (16.59)	56.52 (19.08)	58.15 (26.75)	68.48 (20.16)
P value	0.6160	0.0304	0.4572	0.3183	0.8958	0.6829

* Student's t-test; † analysis of variance; ‡DP: standard deviation.

DISCUSSION

The findings of this study related to the socio-demographic characteristics and support network of the octogenarians corroborate with a study carried out aimed at identifying the profile of healthy aging of octogenarian Brazilian elderly people in the city of Sete Lagoas/MG, in which age ranged from 80 to 108 years old, with predominance of females, widows, illiterates, retirees, family income between one and three minimum wages, and with family members as a social network.⁸

In another study with elderly people hospitalized in a public hospital in the city of Uberaba/MG (MG), the most affected domains of QOL questionnaires were physical, autonomy, and social participation. A partially similar result was found in this study, in which the domains more compromised in the octogenarians were physical and autonomy. This can be explained by the fact that hospitalization often contributes to pain and fatigue, as well as to decreased quality of sleep during the care received. As repercussions, hospitalization is usually followed by a decrease in functional capacity and autonomy; and changes in QOL often irreversible.⁹

The octogenarians with more days of hospitalization had higher scores in the psychological and past, present and future activity domains; the higher the age of the participants, the lower the score in the past, present and future activity domain. The psychological domain is also related to spirituality, religiosity, and beliefs.¹⁰ Since most of the participants in this study reported having religion, this result may be related to the fact that religion may have contributed to the coping of the illness and to the better resilience with respect to the changes caused by the hospitalization. The domain of past, present, and future activities is related to satisfaction with achievements and future hopes. It is inferred that the older elderly are not satisfied with their achievements or have no prospects for the future. However, the support of the family and the health team can enhance the abilities of the elderly to idealize and carry out projects and, indirectly, increase their self-esteem.¹¹

The elderly who did not present morbidities had significantly higher social relation scores than those with morbidities. The health condition interferes in QOL because the presence of certain diseases may contribute to the weakening of the elderly, and may negatively interfere in their social relations.¹²

The maintenance of social relationships is an important strategy for helping to cope with daily adversities and the feeling of loneliness. In addition, maintaining social relationships is protective of functionality and contributes to active aging.¹³ This scenario may explain the findings of this study in which patients with community support networks presented significantly higher scores in the physical, psychological, and environmental domains when compared to those without a support network.

The interviewees with income higher than two minimum wages had a significantly higher score in the social relationship domain than those with income between one and two minimum wages. Another study with the elderly, carried out at a health unit in Ceilândia/DF, found that those with income higher than four wages also had a higher score in the social relationship domain.¹⁴ Therefore, it is assumed that the higher the income, the greater the network of social relationship.

Participants with community support network presented significantly higher scores in all domains of the WHOQOL-OLD, with the exception of the intimacy domain, when compared to those without support network. The existence of support networks for the elderly is essential to ensure autonomy, positive self-evaluation, and better mental health and QOL. Aging increases the risks of vulnerabilities and diseases, aggravated in circumstances where the social context is underprivileged, and the social support network is weak or non-existent.¹⁵⁻¹⁶ Social and emotional support networks can be seen as resources that help the elderly to cope successfully with the adversities of life.

The patients with religion presented higher scores in the social participation domain. The elderly with income up to a minimum wage had a higher score in the death and dying domain, and those with income greater than two minimum wages had a higher score in the intimacy domain. QOL is directly

associated with socio-economic factors, such as age, sex, educational level, income, employment, and religion.¹⁷ Better social conditions are associated with positive impact on life satisfaction and wellness of the elderly.¹⁸

Old age is often associated with chronic non-communicable diseases, which can affect functional capacity, impairing autonomy and culminating in the need for a caregiver.¹⁹ In this study, octogenarians who did not have a caregiver presented higher scores in the autonomous domain.

The present study has as a limitation due to the fact that it was carried out in a single center, with assistance only provided to patients of the public health system, which may not cover other realities. The results of this study cannot be generalized, since they have characteristics specific to a certain region of the country. However, they can contribute to the improvement of the care provided to the elderly, since the knowledge of the factors that are related to QOL is important and necessary to guide behaviors, treatments, and policies for this population. It also enables health professionals to rethink health strategies focused mainly on the domains affected in the QOL.

CONCLUSION

The variables that correlated positively with the quality of life of the octogenarians were extended hospital stay; having a support network and religion; not having morbidities and caregivers; and having higher income. Greater age and high number of comorbidities had a negative correlation with the quality of life of the elderly in this study.

In view of the foregoing, it is extremely important that the care for hospitalized elderly is planned and implemented, taking into account the factors that interfere in a positive and negative way in their quality of life.

REFERENCES

1. Campos ACV, Ferreira EF, Vargas AMD, Gonçalves LH. Healthy aging profile in octogenarians in Brazil. *Rev Latino-Am Enfermagem*. 2016 [cited 2018 Aug 17];24:e2724. Available from: <https://dx.doi.org/10.1590/1518-8345.0694.2724>
2. Tavares DMS, Ribeiro AG, Ferreira PCS, Martins NPF, Pegorari MS. Octogenarians in rural and urban settings: socioeconomic comparison, morbidities and quality of life. *Rev enferm UERJ* [Internet]. 2015 [cited 2018 May 24];23(2):156-63. Available from: <http://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/5961>
3. Hartgerink JM, Cramm JM, Bakker TJ, Mackenbach JP, Nieboer AP. The importance of older patients experiences with care delivery for their quality of life after hospitalization. *BMC Health Services Research* [Internet]. 2015 [cited 2018 May 24];15:311. Available from: <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-015-0982-1>
4. Bornet MA, Rubli Truchard E, Rochat E, Pasquier J, Monod S. Factors associated with quality of life in elderly hospitalised patients undergoing post-acute rehabilitation: a cross-sectional analytical study in Switzerland. *BMJ Open* [Internet]. 2017 Oct [cited 2018 May 24];7(10):e018600. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29061633>
5. Mazullo Filho JBR, Silva JMO, Tavares AHS, Rocha GM. Evaluation of quality of life of patients admitted to the intensive care unit of a hospital in Teresina – PI. *ConScientiae Saúde* [Internet]. 2011 [cited 2018 May 24];10(4):643-9. Available from: <https://www4.uninove.br/ojs/index.php/saude/article/download/2542/2100>
6. Fleck MP, Chachamovich E, Trentini C. Development and validation of the Portuguese version of the WHOQOL-Old module. *Rev Saúde Pública* [Internet]. 2006 [cited 2018 May 24];40(5):785-91. Available from: <https://dx.doi.org/10.1590/S0034-89102006000600007>

7. Fleck MP, Louzada S, Xavier M, Chachamovich E, Vieira G, Santos L, et al. Application of the Portuguese version of the abbreviated instrument of quality life WHOQOL-bref. *Rev Saúde Pública* [Internet]. 2000 [cited 2018 May 24];34(2):178-83. Available from: <https://dx.doi.org/10.1590/S0034-8910200000200012>
8. Nascimento IMT, Mello PF, Couto AM, Guimarães GL, Mendoza IYQ. Association between sociodemographic characteristics and depressive symptoms in hospitalized elderly. *Rev Rene* [Internet]. 2017 [cited 2018 May 24];18(6):749-55. Available from: <http://periodicos.ufc.br/rene/article/view/31082>
9. Bettarello VC, Silva LMA, Molina NPFM, Silveira T, Rodrigues LR. Quality of life and frailty among hospitalized elderly. *Rev Eletr Enf* [Internet]. 2016 [cited 2018 May 24];18:e1195. Available from: <https://revistas.ufg.br/fen/article/view/38214>
10. Gomes JRAA, Hamann EM, Gutierrez MMU. Application of the WHOQOL-BREF in a community segment as a subsidy for health promotion actions. *Rev bras epidemiol* [Internet]. 2014 [cited 2018 May 24];17(2):495-516. Available from: <https://dx.doi.org/10.1590/1809-4503201400020016ENG>
11. Tavares DMS, Matias TGC, Ferreira PCS, Pegorari MS, Nascimento JS, Paiva MM. Quality of life and self-esteem among the elderly in the community. *Ciênc saúde coletiva* [Internet]. 2016 [cited 2018 May 24];21(11):3557-64. Available from: <https://dx.doi.org/10.1590/1413-812320152111.03032016>
12. Pereira DS, Nogueira JAD, Silva CAB. Quality of life and the health status of elderly persons: a population-based study in the central sertão of Ceará. *Rev Bras Geriatr Gerontol* [Internet]. 2015 [cited 2018 May 24];18(4):893-908. Available from: <http://www.redalyc.org/articulo.oa?id=403843286018>
13. Silva MO, Santos AS, Angelotti LCZ, Andrade VS, Tavares GS. Work, leisure activities and family support: factors to protect quality of life of elderly. *Rev Ter Ocup Univ São Paulo* [Internet]. 2017 [cited 2018 May 24];28(2):163-72. Available from: <http://www.revistas.usp.br/rto/article/view/113975>
14. Stival MM, Lima LR, Funghetto SS, Silva AO, Pinho DLM, Karnikowsk MGO. Factors associated with quality of life of elderly attending a health unit in the Federal District, Brazil. *Rev Bras Geriatr Gerontol* [Internet]. 2014 [cited 2018 May 24];17(2):395-405. Available from: <https://dx.doi.org/10.1590/S1809-98232014000200016>
15. Maia CML, Castro FV, Fonseca AMG, Fernández MIR. Redes de apoio social e de suporte social e envelhecimento ativo. *INFAD Rev Psicol* [Internet]. 2016 [cited 2018 May 24];1(1):293-304. Available from: <http://www.infad.eu/RevistaINFAD/OJS/index.php/IJODAEP/article/view/279>
16. Campos ACV, Cordeiro EC, Rezende GP, Vargas AMD, Ferreira EF. Quality of life of elderly practitioners of physical activity in the context of the family health strategy. *Texto Contexto Enferm* [Internet]. 2014 [cited 2018 May 24]; 23(4):889-97. Available from: <https://dx.doi.org/10.1590/0104-07072014002060013>
17. Andrade JMO, Rios LR, Teixeira LS, Vieira FS, Mendes DC, Vieira MA, et al. Influence of socioeconomic factors on the quality of life of elderly hypertensive individuals. *Ciênc saúde coletiva* [Internet]. 2014 [cited 2018 May 24]19(8):3497-504. Available from: <https://dx.doi.org/10.1590/1413-81232014198.19952013>
18. Gustafsson S, Berglund H, Faronbi J, Barenfeld E, Ottenvall Hammar I. Minor positive effects of health-promoting senior meetings for older community-dwelling persons on loneliness, social network, and social support. *Clin Interv Aging* [Internet]. 2017 [cited 2018 May 24];12:1867-77. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29158669>
19. Fuhrmann AC, Bierhals CCBK, Santos NO, Paskulin LMG. Association between the functional capacity of dependant elderly people and the burden of family caregivers. *Rev Gaúcha Enferm* [Internet]. 2015 [cited 2018 May 24]; 36(1):14-20. Available from: <https://dx.doi.org/10.1590/1983-1447.2015.01.49163>

NOTES

ORIGIN OF THE ARTICLE

Paper extracted from the postdoctoral project in Nursing entitled “Quality of life, satisfaction with life and religiosity/spirituality of hospitalized elderly” of the Paulista School of Nursing – Federal University of São Paulo.

CONTRIBUTION OF AUTHORITY

Conception of this study: Okuno MFP, Rosa AS, Lopes MCBT, Campanharo CRV, Batista REA, Belasco AGS.

Data collection: Okuno MFP.

Analysis and interpretation of data: Okuno MFP, Rosa AS, Lopes MCBT, Campanharo CRV, Batista REA, Belasco AGS.

Discussion of the results: Okuno MFP, Rosa AS, Lopes MCBT, Campanharo CRV, Batista REA, Belasco AGS.

Writing and/or critical review of content: Okuno MFP, Rosa AS, Lopes MCBT, Campanharo CRV, Batista REA, Belasco AGS.

Review and final approval of the final version: Okuno MFP, Rosa AS, Lopes MCBT, Campanharo CRV, Batista REA, Belasco AGS.

ETHICS COMMITTEE IN RESEARCH

Approved by the Research Ethics Committee of the *Universidade Federal de São Paulo*, opinion No. 1.480.631, Certificate of Presentation for Ethical Appreciation : 53904316.6.0000.5505

CONFLICT OF INTEREST

There is no conflict of interest.

HISTORICAL

Received: June 05, 2018

Approved: September 21, 2018

CORRESPONDENCE AUTHOR

Meiry Fernanda Pinto Okuno
mf.pinto@unifesp.br

