UFSM

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REVISTA DE ENFERMAGEM DA UFSM

ISSN 2179-7692
Open access

Rev. Enferm. UFSM, v.12, e50, p.1-18, 2022 • https://doi.org/10.5902/2179769269062
Submission: 01/19/2021 • Acceptance: 09/27/2022 • Publication: 11/18/2022

Original article

Factors associated with the quality of life of the elderly in public long-stay institutions*

Fatores associados à qualidade de vida da pessoa idosa em instituições de longa permanência públicas

Factores relacionados con la calidad de vida de las personas mayores en instituciones públicas de larga estancia

Gerson Scherrer Júnior[I], **Meiry Fernanda Pinto Okuno**[I], **Guilherme Carlos Brech**[II], **Angélica Castilho Alonso**[II], **Angélica Goncalves Silva Belasco**[I]

[I] Universidade Federal de São Paulo. São Paulo, São Paulo
[II] Universidade São Judas. São Paulo, São Paulo, Brazil

*** Extracted from the thesis "Quality of life, presence of signs and symptoms of depression and level of dependence to perform basic activities of daily living, of elderly people living in long-stay institutions in the city of São Paulo", Postgraduate Program in Health Sciences, Paulista School of Nursing, Federal University of São Paulo, 2020.**

Abstract

Objective: to evaluate the quality of life of the institutionalized elderly and its association with sociodemographic variables, symptoms of depression and self-care capacity. **Method:** cross-sectional study, between 2017 and 2019, with a sample of 99 elderly people. The collection was performed through an interview conducted in a private room. Associations were tested by multivariate linear regression, adopting $p<0.05$. **Results:** depressive symptom worsens quality of life; longer time living and freedom to leave the institution improve the perception of past, present and future activities, social participation and being illiterate in both; Dependents are satisfied with the environment and social participation; receiving visit improves the psychological and social relations; limitation of movements harms the physical; and age over 70 harms social relations. **Conclusion:** environment that stimulates mental and physical health and relationships and social participation are factors that improve the quality of life of the elderly.
Descriptors: Geriatric Nursing; Quality of Life; Homes for the Aged; Health of the Elderly; Aging

Resumo

Objetivo: avaliar a qualidade de vida de idosos institucionalizados e sua associação a variáveis

sociodemográficas, sintomas de depressão e capacidade de autocuidado. **Método:** estudo transversal, entre 2017 e 2019, com amostra de 99 idosos. A coleta foi realizada por meio de entrevista dirigida em sala privativa. Associações foram testadas por regressão linear multivariada, adotando p<0,05. **Resultados:** sintoma depressivo piora a qualidade de vida; maior tempo de moradia e liberdade para sair da instituição melhoram a percepção de atividades passadas, presentes e futuras, participação social e ser analfabeto em ambos; os dependentes estão satisfeitos com o ambiente e participação social; receber visita melhora o psicológico e relações sociais; limitação de movimentos prejudica o físico; e idade superior a 70 anos prejudica as relações sociais. **Conclusão:** ambiente que estimule a saúde mental e física e as relações e participações sociais são fatores que melhoram a qualidade de vida dos idosos.
Descritores: Enfermagem Geriátrica; Qualidade de Vida; Instituição de Longa Permanência para Idosos; Saúde do Idoso; Envelhecimento

Resumen

Objetivo: evaluar la calidad de vida de ancianos institucionalizados y su asociación a variables sociodemográficas, síntomas de depresión y capacidad de autocuidado. **Método:** estudio transversal, entre 2017 y 2019, con muestra de 99 ancianos. La colecta fue realizada por medio de entrevista dirigida en sala privada. Las asociaciones fueron probadas por regresión lineal multivariada, adoptando p<0,05. **Resultados:** síntoma depresivo empeora la calidad de vida; mayor tiempo de vivienda y libertad para salir de la institución mejoran la percepción de actividades pasadas, presentes y futuras, participación social y ser analfabeto en ambos; los dependientes están satisfechos con el ambiente y participación social; recibir visita mejora lo psicológico y relaciones sociales; limitación de movimientos perjudica lo físico; y edad superior a 70 años perjudica las relaciones sociales. **Conclusión:** ambiente que estimule la salud mental y física y las relaciones y participaciones sociales son factores que mejoran la calidad de vida de los ancianos.
Descriptores: Enfermería Geriátrica; Calidad de Vida; Hogares para Ancianos; Salud del Anciano; Envejecimiento

Introduction

The change in the profile of the population began in high-income countries, such as Japan, which has been at the top of the ranking of the highest percentage of the elderly in the world for more than a decade, being the only one to reach the 28.5% mark, which amounts to 35.88 million elderly in 2020. In developing countries, such as Brazil, in 2019, had 8.92% of the elderly over their general population, which is equivalent to almost 17 million people.[1]

Thus, an action plan on aging and health was drawn up, stipulated for the period between 2016 and 2020, a global strategy of the World Health Organization (WHO) to maximize the functional capacity of the elderly.[2] Following the global challenge, the social and health systems of Brazil, through public policies aimed at the elderly, set as a goal the development of strategies to preserve and promote autonomy and independence through the maintenance of

functional capacity.[3] As life expectancy increases, it is important to ensure that the elderly maintain quality of life (QoL), despite the decline in physical and mental functional capacity and the coexistence of chronic diseases.[4]

Initiatives to improve or preserve QoL and promote the health of the elderly living in Long-Term Care Institutions for the Elderly (ILPI) are increasingly important. Thus, for the present study, it was adopted as a definition of QoL: the subjective perception of the individual in a given context of life, influenced by physical and mental, social, cultural, value system objectives, expectations and concerns of the elderly in relation to life.[5]

The general QoL covers several constructs, such as physical health, spirituality, religiosity and beliefs, social relations and significant characteristics of the environment.[6] The specific QoL covers the elderly and the satisfaction that it demonstrates in the dimensions of the functioning of vision, taste, smell, hearing and touch, ability to make decisions, achievements, future hopes, social participation, relationship with death and have someone to exchange intimacy with.[7]

The change to an LTCI can result in diseases, disabilities, loss of functions and social relations and coping with the end of life, and the sum of these can be detrimental to autonomy, independence and QoL of the elderly. In addition, they experience the change of roles, relationships and life environments, which favors increased risk of social isolation and depressed mood.[8] Research shows high prevalence of signs and symptoms of depression in institutionalized elderly, regardless of the ability to perform the Basic Activities of Daily Life (BADL).[9]

With advancing age, it is inevitable that people lose connection with their networks of friendship, who find it more difficult to start new friendships and belong to new networks. Despite old age, the existence of chronic diseases or weaknesses, the desire for affiliation and social bond is an intrinsic human need that can be adapted when living in an LTCI.[10]

The public LTCIs of São Paulo are places of collective reception, called as social and health services. The institutionalized are those who have different needs and/or levels of dependencies such as: situation of social vulnerability; without conditions to remain in the family; family bonds weakened or broken; situation of family or institutional neglect suffering abuse, maltreatment or other forms of violence, or presenting loss of self-care capacity.[11]

The institutionalized elderly live collectively, but socially isolated, with a marked loss in functional capacity, as well as high rates of mental and physical diseases that cause frailty and impairment of QoL. A research identified that there are few studies with elderly residents in

public LTCIs in São Paulo. Therefore, it is important to know the profile of this population, the QoL, the ability to perform BADL and if they present symptoms of depression, as it subsidizes the multidisciplinary team in the prevention strategies and promotion of health and functional capacity. Knowing this profile also improves management and nursing care, because providing evidence-based care to this population is vital to ensure the improvement of QoL, as recommended by public policies and WHO strategy. Thus, the objective of this study was to evaluate the QoL of the institutionalized elderly and its association with sociodemographic variables, symptoms of depression and self-care capacity.

Method

Design, period and study site

This is a cross-sectional study, conducted from July 2017 to February 2019, in all 10 public LTCIs, existing at the time, in the city of São Paulo. These institutions are inserted in the communities, presenting physical structure adapted to residential characteristics and aiming to accommodate elderly people aged 60 years or older in social and physical vulnerability.

Participants

The population of the 10 LTCIs was composed of 318 elderly; of these, 219 (68.8%) did not participate in the study due to refusal (16; 7.3%), impaired cognition (199; 90.8%), absence at the time of the research (3; 1.37%) and auditory deficit (1; 0.4%). Thus, the sample consisted of 99 (31.1%) elderly aged ≥ 60 years, of both sexes, residents for at least 3 months, and who had favorable conditions for understanding the questionnaires, according to the evaluation of the Mini Mental State Examination (MMSE).[12]

Study protocol

Data collection was performed through directed interview, with an average duration of 40 minutes. The researcher read the questions individually in a private room provided by LTCI.

The MMSE evaluated cognition and guided the continuity of the other instruments, because the elderly who had a lower score, according to the level of education, that is, 19 points for illiterates, 23 points for those with 1 to 3 years of study, 24 points for people with 4 to 7 years of study and 28 points for those over 7 years of study were excluded from the study.[12]

Then, social information (age, sex, marital status, skin color and level of education), lifestyle (smoking, physical activity and leisure), support network (receiving a visit, freedom to leave, housing time and number of children) and clinical aspects (referred pain and movement limitation) were sought, which were stored in a structured questionnaire.

The Katz Index was used in data collection to assess the ability of the elderly to perform BADL. The scale is divided into six categories, which include bathing, dressing, personal hygiene, transfer, continence and feeding. The result can range from zero to six points, and the elderly are classified as: 0 to 2 points, dependent; 3 to 4 points, partially dependent; 5 to 6 points, independent.[13]

The Beck Depression Inventory (BDI) was used in the study to screen for symptoms of depression. In the overall result, scores of up to 9 points mean absence of signs and symptoms of depression; from 10 to 18 points, signs and symptoms of mild depression; from 19 to 29 points, signs and symptoms of moderate depression; and from 30 to 63 points, signs and symptoms of severe depression.[14]

The QoL was evaluated by means of the instruments of the WHO: specific WHOQOL-OLD, to be used in the elderly population and the WHOQOL-BREF, generic instrument of evaluation of QoL, in abbreviated version. The final scores of each domain can range from zero to 100 points.[6-7] WHOQOL-OLD is composed of 24 questions, sectioned into six domains: sensory functioning; autonomy; past, present and future activities; social participation; death and death; and intimacy.[7] WHOQOL-BREF is composed of 26 questions, divided into four domains: physical; psychological; social relations; and environment.[6]

The mean score in each facet indicates the perception of the elderly regarding their satisfaction in each of these aspects of their lives, relating them to their QoL. According to the scale used from 0 to 100, the closer the average score of the elderly is 100, the more satisfied or positive is the perception about that facet, according to the respective items. Therefore, we considered the categorization scale of the facets using the following score: 0 to 20, very dissatisfied; 21 to 40, dissatisfied; 41 to 60, neither satisfied nor dissatisfied; 61 to 80, satisfied; and 81 to 100, very satisfied.[6-7]

Statistical analysis

The software used was the R studio, and the variables were described by means of

means, variation, absolute and relative frequency. To verify the relationship of the dependent variable (QoL), through the WHOQOL-OLD and WHOQOL-BREF, with the independent variables (sex, age, marital status, skin color, level of education, smoking, physical activity and leisure, pain, movement limitation, time of residence, freedom to leave the institution, visits, signs and symptoms of depression and degree of dependence for BADL), first, the univariate linear models were adjusted to verify possible univariate relations, then the multivariate linear models, to verify whether the variables found significantly in the univariate analysis contributed jointly to the increase or decrease in QoL.

When the residuals of the final model did not follow normality, a BoxCox transformation was performed in the dependent variable. This is a useful data transformation technique used to stabilize variance, make data more similar to normal distribution, and improve the validity of association measures. Another approach was to make a generalized linear model adjustment, in which it was considered that the response followed the Gamma distribution. The relationships were considered statistically significant if $p \leq 0.05$.

Ethical aspects

The research project was evaluated and approved by the Research Committee of the Municipal Department of Social Assistance and Development of the City of São Paulo and by the Research Ethics Committee of the institution, under Certificate of Presentation of Ethical Assessment 62326816.1.0000.5505 and Opinion 2.193.319, according to Resolution 466/2012 of the National Health Council.

Results

In this study, males predominated, aged 60 to 69 years, single and white. Most of the elderly reported not having children, not receiving visits and not being free to leave the LTCI. The hegemonic level of education was illiterate. Most were sedentary, had no leisure time, non-smoking, had limited movement, depressive symptoms and independent for BADL.

Table 1 - Social characteristics, lifestyle, support network and clinical aspects of elderly residents in public long-stay institutions for the elderly in the city of São Paulo. São Paulo, Brazil, 2017 to 2019. (n=99)

Characteristic		n (%)
Sex	Male	50 (50.5)
	Female	49 (49.5)
Age	mean (variation)	73.5 (61 a 97)
	60 - 69	40 (40.4)
	70 - 79	36 (36.4)
	80 - 89	18 (18.2)
	90 - 99	5 (5.0)
Marital status	Married	6 (6.1)
	Single	53 (53.5)
	Widowed	23(23.2)
	Divorced	17(17.2)
Skin color	White	58 (58.6)
	Black	15 (15.1)
	Brown	26 (26.3)
Children	mean (variation)	1.01 (0 - 4)
	Yes	47 (47.4)
	No	52 (52.6)
Living time	months (variation)	28.5 (3 - 120)
Freedom to leave the LTCI*	Yes	37 (37.4)
	No	62 (62.6)
Visits	Yes	41 (41.4)
	No	58 (58.6)
Education	Illiterate	43 (43.5)
	Elementary school	40 (40.3)
	High school	6 (6.1.0)
	Higher education	10 (10.1)
Smoker	Yes	27 (27.3)
	No	72 (72.7)
Physical activity	Yes	12 (11.7)
	No	87 (88.3)
Leisure	Yes	43 (43.5)
	No	56 (56.5)
Movement limitation	Yes	51 (51.5)
	No	48 (48.5)
Signs and symptoms of depression	Absent	24 (24.2)
	Mild	33 (33.4)
	Moderate	21 (21.2)
	Severe	20 (20.2)
	Unanswered	1 (1.0)
Level of dependence – BADL†	Total	7 (7.1)
	Partial	10 (10.1)
	Independent	82 (82.8)

*Long-Term Care Institution; † Basic Activities of Daily Living.

Table 2 presents the QoL scores according to the WHOQOL-OLD and the WHOQOL-BREF of the elderly living in public LTCIs in the city of São Paulo. The best WHOQOL-OLD scores were expressed by the domains death and death and sensory functioning, and the most compromised was autonomy. In the WHOQOL-BREF, the highest averages were for the psychological and physical domains, and the lowest for the environment domain.

Table 2 - Scores of the WHOQOL-OLD and WHOQOL-BREF domains of elderly people residing in public long-stay institutions for the elderly in the city of São Paulo. São Paulo, Brazil, 2016 to 2019

WHOQOL-OLD	Mean	Amplitude	WHOQOL-BREF	Mean	Amplitude
Sensory functioning	66.2	93.7	Physicist	60.4	92.9
Autonomy	49.7	100	Psychological	61.6	100
Past present and future activities	59.6	93.7	Social relationships	56.1	91.7
Social participation	56.4	93.7	Environment	53.8	87.5
Death and dying	73.7	93.7	Total	58.1	77.9
Intimacy	52.8	93.7			
Total	59.8	64			

Absence or mild symptoms of depression estimates improvement in the domains of QoL, except in death and death. Having freedom to leave and longer time living at LTCI enhance past, present and future activities. The elderly who are total dependents have greater satisfaction with social participation. Low education level improves perception in both (past, present and future activities and social participation). The elderly with limited movement negatively understand the physical domain. Receiving visits was associated with improving the understanding of psychological and social relations. Age equal to or greater than 70 years impairs social relations (Table 3 and 4, respectively).

Table 3 - Associations between scores of the WHOQOL-OLD domains and sociodemographic variables, lifestyle and clinical aspects, signs and symptoms of depression in elderly people living in public long-stay institutions for the elderly in the city of São Paulo. São Paulo. Brazil. 2016 to 2019

WHOQOL-OLD	Estimate	Standard deviation	95% CI	P-value
Sensory functioning				
Women	197.74	20.43	[157.18; 238.28]	<0.001
Male	210.25	20.43	[169.70; 250.80]	<0.001
Absence of depression signs and	133.36	28.38	[77.022; 189.70]	<0.001
symptoms	78.24	25.80	[27.010; 129.46]	0.003
Signs and symptoms of mild depression				
Autonomy				
Absence of depression signs and	59.15	6.753	[45.753; 72.559]	<0.001
symptoms	53.80	5.759	[42.379; 65.239]	<0.001
Signs and symptoms of mild depression				
Past, present, future activities				
Illiterate	41.36	5.167	[31.101; 51.624]	<0.001
Elementary School	35.72	5.601	[24.604; 46.847]	<0.001
High school	40.83	10.619	[19.744; 61.922]	<0.001
Residence time	0.40	5.089	[0.166; 0.652]	0.001
Freedom to leave the LTCI	14.25	6.052	[4.145; 24.357]	0.006
Absence of depression signs and	24.25	6.052	[12.236; 36.272]	<0.001
symptoms				
Social Participation				
Illiterate	52.01	3.848	[44.375; 59.657]	<0.001
Elementary School	48.57	4.098	[40.434; 56.707]	<0.001
University education	46.87	8.074	[30.845; 62.907]	<0.001
Absence of depression signs and	32.32	5.486	[21.429; 43.213]	<0.001
symptoms	21.68	9.715	[2.390; 40.968]	0.028
Total dependence				
Death and Dying				
Women	4.28	0.043	[4.196; 4.367]	<0.001
Men	4.30	0.043	[4.225; 4.395]	<0.001
Intimacy				
Women	49.81	3.309	[43.246; 56.384]	<0.001
Men	47.04	3.197	[40.703; 53.395]	<0.001
Absence of depression signs and	20.22	4.987	[10.326; 30.123]	<0.001
symptoms				
Total				
Women	56.15	1.992	[52.197; 60.105]	
Male	56.22	1.924	[52.401; 60.039]	<0.001
Absence depression symptoms	14.91	3.001	[8.953; 20.868]	<0.001
				<0.001

Table 4 - Associations between scores of the WHOQOL-BREF domains and social variables, lifestyle, clinical aspects, signs and symptoms of depression in elderly people living in public long-stay institutions in São Paulo. São Paulo, Brazil, 2016 to 2019

WHOQOL-BREF	Estimate	Standard deviation	95% CI	P-value
Physical				
Women	51.36	3.885	[43.653; 59.080]	<0.001
Men	55.57	3.902	[47.830; 63.327]	<0.001
Movement limitation	-8.54	3.502	[-15.501; -1.595]	0.016
Absence of symptoms of	26.78	4.421	[18.006; 35.561]	<0.001
depression	14.89	3.967	[7.014; 22.767]	<0.001
Symptoms of mild depression				
Psychological				
Women	48.24	3.458	[41.375; 55.106]	<0.001
Male	48.92	3.466	[42.0427; 5.806]	<0.001
Receive visits	8.80	3.548	[1.757; 15.844]	0.015
Absence of symptoms of	22.97	4.428	[14.180; 31.765]	<0.001
depression	10.97	4.043	[2.948; 19.004]	<0.001
Symptoms of mild depression				
Social relationships				
Women	94.39	18.679	[57.301; 131.489]	<0.001
Male	94.37	18.336	[57.965; 130.790]	<0.001
Age 70 years	-0.67	0.246	[-1.161; -.182]	0.007
Receive visitors	8.62	4.170	[0.345; 16.908]	0.041
Absence of symptoms of	14.88	5.205	[4.552; 25.225]	0.005
depression	11.56	4.762	[2.113; 21.026]	0.017
Symptoms of mild depression				
Environment				
Women	46.79	2.760	[41.319; 52.277]	<0.001
Men	42.29	2.760	[36.817; 47.775]	<0.001
Absence of symptoms of	22.71	3.834	[15.103; 30.328]	<0.001
Depression	12.10	3.487	[5.187; 19.031]	<0.001
Total dependence				
Total				
Women	47.64	2.520	[42.644; 52.647]	<0.001
Men	48.05	2.520	[43.054; 53.057]	<0.001
Absence of symptoms of	23.88	3.501	[16.931; 30.830]	<0.001
depression				<0.001
Symptoms of mild depression	13.50	3.183	[7.185; 19.824]	

Discussion

Among the social data, the male sex (50.5%) presented a slight predominance that diverges from the profile of the elderly living in both the community[4] and LTCIs.[8,11] In general, the woman is more likely to live in an LTCI, due to life expectancy being higher than that of men, thus making them widows, economic losses and chronic diseases, which can compromise

health conditions and functional capacity.[15] This divergence may be related to the fact that the researched public LTCIs harbor, in most cases, elderly homeless, destitute, lost, abandoned, without family and social reference in São Paulo, a situation usually experienced by men.[16]

The study found a predominance of singles, with low schooling or illiterate, with an average institutionalization time of more than two years, who did not receive visits and without children. Very diverse characteristics were found in philanthropic LTCIs, indicating a predominance of females, with a higher mean age (77 years), literate, with institutionalization time on average 2.25 times longer and receiving visits.[17] in general, shelter elderly with low education or illiterate, single, without children and who do not receive visits.[15]

In LTCIs, the visit of family members or friends is essential, as it helps the elderly to adapt to the situation of institutionalization, as well as improve well-being and QoL.[17] The absence of visits may be related to abandonment and implies a decline in physical and mental condition, also associated with the presence of depression.[15]

Physical inactivity is a global health problem that greatly contributes to early mortality. Residents of LTCIs spend 89-92% of their waking hours in the sitting or lying position, and the consequences of physical inactivity can manifest as pressure injury, contractures, cardiovascular deconditioning, urinary infections, self-care deficit and cognitive impairment.[18] In the present study, 87 (88.3%) elderly did not perform physical activity, however individuals who presented an affirmative response regarding physical activity were associated with those developed in physiotherapy sessions. Physical benefits, maintenance of cognitive function and decreased perception of loneliness among residents of LTCIs were verified after an intervention performed with individualized and progressive physical exercises, for a period of six months.[18]

A little more than half of the participants in this research did not perform leisure activity, which has been considered a type of fundamental assistance. This activity provides pleasant and well-being experiences, helps in adapting to institutionalization, improves cognitive and functional capacity, reduces depression rates, strengthens confidence and self-esteem, promotes social support network and improves QoL.[19]

Thus, one of the attributions of LTCIs is the implementation of active aging policy, providing opportunities for people to adopt healthy lifestyle habits and improve their QoL. Promoting conditions for the practice of leisure and recreation, such as dance, music, walking, crafts, among others, brings great benefits to the life of this population, as it contributes to an

increase in their physical fitness and self-esteem, improves balance and motor coordination, greater satisfaction and joy, thus leading to an effective QoL.[20]

Another important point found in this study was that 62.6% of the elderly did not enjoy freedom to leave the LTCI. Although the majority of the elderly are independent, many have limited movement, but this did not limit this freedom. This lack of freedom is pointed out as the greatest annoyance experienced by the elderly in institutions.[21] Making it impossible for the elderly to leave the home environment refers to environmental containment, negatively impacting on cognitive capacity, physical and psychological health, and may even result in death.[22-23] It is necessary to rethink the institutional culture of environmental containment in LTCIs as a strategy for improving QoL.

In general, based on the results of the present study, the QoL of the participants was moderate, according to general scores of the WHOQOL-OLD (59.8) and BREF (58.1) questionnaires. The most compromised domain was autonomy (49.7), and the most satisfactory, death and dying (73.7).

Compared to the elderly of high economic standard LTCIs of São Paulo, the worst dimension was intimacy (58.9), and the best, death and dying (78.5), with a total of 67.8 Elderly with highly structured collective lifestyle of Xi'an, China, who found satisfaction with QoL,[23] had lower scores in the intimacy domain (58.9) and higher in the death and death domain (88.5), in addition to overall scores of 70.5.

In Talca, Chile, an experimental and longitudinal study with elderly of three ILPIs submitted, for six weeks, the elderly to aerobic resistance training, muscle strength, balance and flexibility. The WHOQOL-OLD results showed lower scores for sensory functioning (25.7), higher scores for intimacy (95.3) and general scores of 88.5.[24] The elderly in this study who presented aspects of social vulnerability have lower overall scores than the other studies.

One reason to explain these findings may be the low score in the domains autonomy and environment, because the elderly demonstrate dissatisfaction with the inability to manage whether, make decisions, plan their goals and the right of freedom to come and go of the institutionalized civilly capable elderly person. Another reason may be the lack of family members and visits, which compromises social isolation. Finally, the sedentary lifestyle and no leisure activity, leaving the environment monotonous and compromising QoL.

The present study found that 74.8% of the elderly had symptoms of depression, which

was related to the worsening of the domains of QoL, except the death domain and death. International research in China concluded that depression is a factor for dissatisfaction with QoL, and the domains with lower scores, both physical and social, were related to depressed mood.[25] Depression has been shown to be a health problem that deserves attention in LTCIs, due to the significant prevalence. Early diagnosis and treatment of depression contribute to the improvement of QoL of the institutionalized elderly.[8]

The death and dying domain presented the best score (73.79) among the facets of QoL studied, showing good acceptance of death by the institutionalized elderly, showing no association with or without symptoms of depression. It is believed that the reason for this is the understanding/acceptance that the finitude process can influence QoL, because as one ages, one can experience the death of the spouse, relatives and friends.[26] The long-lived elderly of this study reported being prepared for death, not be afraid to die, who would like to die painlessly and choose the way to die. The fact that the elderly live confined and in monotony, without activity that can generate income, absence of family members and without future prospects, can provide a better relationship with death and dying.

The past, present and future activities domain is related to satisfaction with achievements and future hopes.[7] Every month in time of residence, the score of past, present and future activities increases 0.40 (p=0.001), and is higher in 14.25 (p=0.006) points among the elderly who are free to leave the LTCIs, which leads to consider that the elderly with more time to live and with freedom to leave the LTCI are more satisfied and have prospects for the future. In Chile, older adults who received physical training showed statistically significant and moderate changes in this dimension ($p = 0.018$; $r = 0.53$).[24] The longer time living, having freedom to leave the LTCI and the practice of physical activity are findings that seem to strengthen the relationship of the elderly with the present, providing socialization and future plans.

Regarding BADL, 7.1% of the elderly studied were total dependents. This small group, which depended on comprehensive and continuous care, had 21.68 more points of satisfaction in the field of social participation. This result strongly suggests that this number of elderly people tends to perceive the institution as a place of residence where they are safe, with social and health protection. The lack of offers of daily leisure activities, physical exercises and opportunities to participate in activities in the community does not interfere with the evaluation of these.[27]

The domains past, present and future activities and social participation, which are the

ability to participate in everyday activities, especially in the community, increased the scores, when associated with the level of illiterate schooling.[7] The lower the level of schooling, the lower the social network, the lower the notion of the world around it and the lower the ability to assess the QoL itself.[28]

The variable limitation of movement was negatively related to the physical domain, including physical pain and discomfort, medication/treatment dependence, energy and fatigue, mobility, sleep and rest, activities of everyday life and ability to work.[7] The presence of limitation of movement can quickly be reversed into physical disability, because the discouraged and monotonous environment of the LTCI favors this event, compromising the development of BADL. Research, whose objective was to identify the factors associated with the dependence of institutionalized elderly, concluded that the increase in age and length of stay in LTCIs, cognitive decline and the risk of malnutrition increase the degree of dependence.[13]

The present study showed a negative relationship between the social relations domain and advancing age, older than 70 years. Another cross-sectional study, including 33 frail and pre-frail elderly, confirmed this negative relationship, but with older adults aged 80 years or more. The related factors were loss of functional capacity, physical and mental aspects, impairing the development of BADL, autonomy and independence, especially when these institutionalized elderly remained more isolated.[26]

The elderly who received visits showed improvement of 8 points in the psychological and social relations domains. The elderly do not establish friendships with other residents of LTCIs, due to low motivation, prejudiced attitudes and rejection in relation to other elderly, which refers to the importance of stimulating and strengthening family and friends bonds in the context of visits to the elderly.[23] Individuals with family support report significantly higher health, well-being and perception of QoL than individuals with less support.[23]

The environmental domain is able to assess the satisfaction of the elderly with aspects of physical safety and protection, health care, social aspects, participation and opportunities for recreation/leisure.6 In the present study, the environment domain had an average score of 53,8, positively associated with the variable total dependence to perform BADL. The provision of more adequate and safe environments for the elderly who are totally dependent on care makes them perceive more social protection and health care, because housing, security, adequate food and protection have a positive influence on the QoL of the elderly in the LTCIs.[29]

Study conducted with elderly people attending a referral center showed low average scores, relating them to inadequate physical structure and health care, the presence of violence and environmental insecurity.[27]

Mean total QoL scores were better among male residents. This is due, in general, to the different perceptions about old age between men and women, and may contribute to their self-evaluation of QoL. Women usually feel much more the arrival of age; they feel more uncomfortable, relate old age to something negative, problems and limitations, dependence, finitude, ugliness and fear. Men, on the other hand, understand old age as a universal phenomenon, meaning retirement, dependency and illness; therefore, they become more accustomed to frailties, in addition to being less exposed to physical and mental problems.[28]

This research had as limitations the high number of elderly people who did not have good cognition, as assessed by the MMSE, the extended time to apply the instruments, since they are long, can generate fatigue to the elderly and portray the reality of a specific population.

This study presents the factors that improve and impair QoL, directing to interventions that value individuality and collectivity, autonomy and cultural aspects of the elderly in an environment that stimulates mental health, strengthening social support and control of chronic diseases, which are crucial factors in maintaining functional capacity and QoL.

Conclusion

The elderly are neither satisfied nor dissatisfied with QoL. The absence or mild symptoms of depression estimate improvement in QoL. The level of illiterate schooling improved the social participation domain score, and along with the variables longer time of residence and freedom to leave the LTCI, increased the average of past, present and future activities. The resident with total dependence for self-care demonstrates better satisfaction in the social participation and environment domains. Receiving visits positively influenced the psychological domains and social relations. Presenting limitation of movements interfered negatively in the evaluation of the elderly in relation to the physical domain. Age 70 years or older correlated to lower scores in the social relations domain.

The environment of LTCIs is monotonous and stimulates heteronomy, does not prevent or promote functional capacity, and does not stimulate socialization. These factors were identified in this study, which are the most basic and modifiable, interfering with QoL.

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Funding: Scholarship holder of the Higher Education Personnel Improvement Coordination (CAPES)

Authorship contributions

1 – Gerson Scherrer Júnior
Corresponding Author
Nurse, PhD - E-mail: gscherrer@ig.com.br
Contributed to the conception or design of the study/research; analysis and/or interpretation of data and final review with critical and intellectual participation in the manuscript.

2 – Meiry Fernanda Pinto Okuno
Nurse, Postdoc - E-mail: mf.pinto@unifesp.br
Contributed to the conception or design of the study/research; analysis and/or interpretation of data and final review with critical and intellectual participation in the manuscript.

3 – Guilherme Carlos Brech
Physical Therapist, Postdoc - E-mail: guibrech@gmail.com
Contributed to the conception or design of the study/research; analysis and/or interpretation of data and final review with critical and intellectual participation in the manuscript.

4 - Angélica Castilho Alonso
Physical Therapist, Postdoc - E-mail: angelicacastilho@msn.com
Contributed to the conception or design of the study/research; analysis and/or interpretation of data and final review with critical and intellectual participation in the manuscript.

5 – Angélica Goncalves Silva Belasco
Nurse, Postdoc - E-mail: abelasco@unifesp.br
Contributed to the conception or design of the study/research; analysis and/or interpretation of data and final review with critical and intellectual participation in the manuscript.

Scientific Editor: Tânia Solange Bosi de Souza Magnago
Associate Editor: Etiane de Oliveira Freitas

How to cite this article

Júnior GS, Okuno MFP, Brech GC, Alonso AC, Belasco AGS. Factors associated with the quality of life of the elderly in public long-stay institutions. Rev. Enferm. UFSM. 2022 [Access at: Year Month Day]; vol.12, e50:1-18. DOI: https://doi.org/10.5902/2179769269062