Quality of life of frail and institutionalized elderly

Qualidade de vida do idoso fragilizado e institucionalizado

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Abstract

Objective: To assess the quality of life of institutionalized frail elderly.
Methods: Cross-sectional study including 33 frail and pre-frail elderly, classified based on the Edmonton Frailty Scale. An instrument was applied to characterize the sociodemographic aspects and the World Health Organization Quality of Life for Older Persons to assess the quality of life.
Results: The female sex was predominant (54.5%) and the mean age was 76.8 years (±9.3). A significant association was observed between the quality of life and all of its facets, and a strong relation was found between quality of life and "past, present and future activities" ($r=0.715$; $p<0.001$).
Conclusion: The presence of frailty did not interfere directly in the elderly's quality of life and showed a significant association with the motive for the institutionalization.

Resumo

Objetivo: Avaliar a qualidade de vida de idosos frágeis institucionalizados.
Métodos: Estudo transversal com a inclusão de 33 idosos frágeis e pré-frágeis, classificados a partir da Escala de Fragilidade de Edmonton. Foram aplicados: um instrumento para caracterização dos aspectos sociodemográficos e o instrumento *World Health Organization Quality of Life for Older Persons* para avaliação da qualidade de vida.
Resultados: Houve predomínio do sexo feminino (54,5%) e a média de idade foi de 76,8 anos (±9,3). Observou-se associação significativa entre a qualidade de vida e todas suas facetas, e houve forte relação entre qualidade de vida e "atividades passadas, presentes e futuras" ($r=0,715$; $p<0,001$).
Conclusão: A presença de fragilidade não interferiu diretamente na qualidade de vida de idosos e apresentou associação significativa com motivo de institucionalização.

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Introduction

The aging phenomenon is a global concern and reality. The transition of the population's demographic profile entails sudden epidemiological changes in terms of the increased number of frail elderly and the need for institutionalization. This situation entails challenges to maintain and improve the quality of life and wellbeing of this population.

Frailty in elderly people is a public health problem, and its peculiarities still lack further research. The advance of this syndrome leads to the need for formal health care, mainly in developing countries, where a large part of the population is low income, without socioeconomic conditions to manage home care. The prevalence of institutionalized frail elderly has been estimated at 34.9%,[1] 53.7%[2] and 68.8%[3] in studies undertaken in Europe, and 49.3%[4] and 45.8%[5] in Brazilian studies.

The institutionalization, which is an adverse result of frailty, derives from factors that suggest family abandonment, exclusion and social isolation. These are reasons that contribute to the appearance of negative thoughts, feelings and attitudes or to rejection, which compromises the elderly's emotional and mental conditions and quality of life.

In that context, quality of life is a comprehensive and multidimensional term, which is established based on a concept that addresses the physical health, psychological status, social relations and environment based on subjective assessments.[6] In the aging context, the World Health Organization proposes the Active Aging Policy, which aims to increase the expectation of a healthy life to quality of life for all people who are aging, including frail, physically disabled and care-needing elderly.

It is highlighted that studies about frailty, quality of life and institutionalization are scarce. Thus, dynamical knowledge of these three pillars should contribute to the elaboration of public policies and intervention actions to promote health; prevention of disabilities; and to social and health replanning, with a view to advancing in the institutionalization sector.

Thus, the objective in this study was to assess the quality of life of institutionalized frail elderly.

Methods

Cross-sectional study undertaken at a long-term institution for elderly in the city of Fortaleza, in the Northeast of Brazil, which attended to elderly with all levels of dependence. The target population consisted of individuals aged 60 years or older. The research was undertaken in September 2014.

A convenience sample was selected. The inclusion criteria were: male and female elderly in physical and mental conditions to answer the questions, scoring between 5 (apparently vulnerable) and 10 (moderate frailty) on the Edmonton frailty scale. Out of 50 elderly, 33 attended to the prerequisites and were included in the final sample.

To collect the data, the following sociodemographic variables were chosen: age range, sex, marital status, education, retirement, length and motive of institutionalization and number of visits. In addition, to assess the quality of life, the *World Health Organization Quality of Life for Older Persons* (WHOQOL-OLD) was applied, which consists of 24 items distributed in six facets: sensory abilities; autonomy; past, present and future activities; social participation; death and dying; and intimacy.

The collected information was organized in Microsoft Excel 2010 and analyzed in the Statistical Package for the Social Sciences version 20.0. Before the exploratory analysis of the data, simple frequencies, means, standard errors, minima and maxima were calculated. Quartile-based cut-off scores were established for the WHOQOL-OLD scores. Next, groups of elderly were divided with score ≤71 (quartile 1), between 72 and 88 (quartile 2), and ≥89 points (quartile 3). Then, the groups were correlated with the sociodemographic, institutionalization and frailty characteristics, using the chi-square test. Pearson's correlation coefficient was calculated to identify the inter-relation between quality of life and the WHOQOL-OLD facets. Significance was set at $p<0.05$ and $p<0.01$. After this processing, the results were analyzed according to the relevant literature.

The development of the study complied with the Brazilian and international ethical standards for research involving human beings.

Results

The study included elderly with a mean age of 76.8 years (±9.3), 54.5% being women. The information on the sociodemographic, institutionalization and frailty profile are described in table 1. The sole significant variable associated with quality of life was the motive for the institutionalization (p<0.024), demonstrating that the elderly who were institutionalized upon their own initiative (30.3%) had lower levels of quality of life when compared to the elderly who entered through relatives (51.2%) or due to abandonment (18.2%).

The elderly presented a mean quality of life of 80.45 points (±10.56). The highest mean score was observed in the facet "death and dying" (16.88±3.57) and the lowest in "intimacy" (10.52±4.31) (Table 2).

Table 1. Quality of life and sociodemographic variables

Variables	n(%)	Groups of quality of life score quartiles			p-value
		Quartile 1 n(%)	Quartile 2 n(%)	Quartile 3 n(%)	
Age range* (years)					
60-69	9(27.3)	1(11.1)	5(55.6)	3(33.3)	0.779
70-79	11(33.3)	2(18.2)	5(45.5)	4(36.4)	
80-89	11(33.3)	4(36.4)	4(36.4)	3(27.3)	
90-100	2(6.1)	1(50.0)	1(50.0)	-	
Sex					
Female	18(54.5)	4(26.7)	7(46.7)	4(26.7)	0.907
Male	15(45.5)	4(22.2)	8(44.4)	6(33.3)	
Marital status					
Single	10(30.3)	3(30.0)	6(60.0)	1(10.0)	0.410
Widowed	11(33.3)	3(27.3)	3(27.3)	5(45.5)	
Married	6(18.2)	-	4(66.7)	2(33.3)	
Separated	6(18.2)	2(33.3)	2(33.3)	2(33.3)	
Education					
Illiterate	10(30.3)	1(10.0)	4(40.0)	5(50.0)	0.335
Unfinished/finished primary education	16(48.5)	6(37.6)	7(43.7)	3(18.7)	
Finished secondary education	7(21.2)	1(14.3)	4(57.1)	2(28.6)	
Retirement					
Yes	32(97.0)	8(25.0)	15(46.9)	9(28.1)	0.305
No	1(3.0)	-	-	1(100.0)	
Length of institutionalization** (years)					
≥5	12(36.4)	3(25.0)	4(33.3)	5(41.7)	0.583
6-10	13(39.4)	3(23.1)	8(61.5)	2(15.4)	
>10	8(24.2)	2(25.0)	3(37.5)	3(37.5)	
Receives visits?					
Yes	24(72.7)	4(16.7)	11(45.8)	9(37.5)	0.166
No	9(27.3)	4(44.4)	4(44.4)	1(11.1)	
Who visits?					
Relatives	23(69.3)	4(17.4)	11(47.8)	8(34.8)	0.236
Friends	1(3.0)	-	-	1(100.0)	
Nobody	9(27.3)	4(44.4)	4 (44.4)	1(11.1)	
Motive for institutionalization					
Disease	17(51.5)	2(11.8)	6(35.3)	9(52.9)	0.024
Own initiative	10(30.3)	5(50.0)	5(50.0)	-	
Abandonment	6(18.2)	1(16.7)	4(66.7)	1(16.7)	
Frailty					
Apparently vulnerable	17(51.5)	5(29.4)	7(41.2)	5(29.4)	0.967
Mild frailty	10(30.3)	2(20.0)	5(50.0)	3(30.0)	
Moderate frailty	6(18.2)	1(16.7)	3(50.0)	2(33.3)	

n=33; chi-square test (p<0.05); *mean: 76.8 (±9.3), minimum: 62, maximum: 100; **mean: 5.7 (±5.7), minimum: 6 months, maximum: 20 years

Table 2. Facets of WHOQOL-OLD

Facets	Mean	Standard deviation	Minimum	Maximum
Sensory abilities	13.33	3.40	6	19
Autonomy	12.73	2.42	8	16
Past, present and future activities	13.76	2.18	10	17
Social participation	13.24	2.52	7	16
Death and dying	16.88	3.57	7	20
Intimacy	10.52	4.31	4	20
General score	80.45	10.56	61	99

All facets revealed significant correlations with the quality of life. The facet "past, present and future activities" obtained the highest correlation (0.715) and "autonomy" the lowest correlation (0.494) with the quality of life (Table 3).

Table 3. Pearson's correlation coefficient between quality of life and facets of WHOQOL-OLD, as well as prediction indicators of quality of life

Facets	r	Scores	t	r^2	p-value
Sensory abilities	0.603	1.872	4.213	0.364	<0.001
Autonomy	0.494	2.149	3.160	0.244	0.004
Past, present and future activities	0.715	3.463	5.687	0.511	<0.001
Social participation	0.647	2.707	4.724	0.419	<0.001
Death and dying	0.533	1.575	3.509	0.284	0.001
Intimacy	0.513	1.255	3.325	0.263	0.002

r = Pearson's correlation coefficient; r^2 = determination coefficient; p<0.01

Discussion

The study limitations referred to the cross-sectional design, which did not permit any cause-and-effect relation, and to the picturing of a specific population's reality, without the possibility to generalize the data. On the other hand, the results should contribute to enhance the scientific evidence on the theme quality of life, frailty and institutionalization, and to minimize the risk the institutionalized elderly are prone to, through the assessment of the levels of frailty and quality of life.

These research results confirmed that the quality of life worsens in elder elderly, aged 80 years or older.[7] It is expected that, over the years, the elderly are more susceptible to physical and mental problems, which impair the practice of activities of daily living, autonomy and independence,[8] mainly when these elderly are frail and suffer due to the physical disabilities inherent in the syndrome, reducing the quality of life level.[9] In addition, as a result of the institutionalization, these effects can be enhanced.

A significant association was found between the motive of the institutionalization and the quality of life (p<0.024). Different motives make the elderly enter long-term institutions for the elderly upon their own initiative, whether because they live alone, consider themselves a burden or feel neglected by the family, or because they are aware of their need for health care. This can entail low levels of quality of life, as these elderly can face adaptation difficulties, staying at the institution because they accept their new reality, but because of their pride or health needs. On the opposite, elderly who are abandoned and/or suffer from comorbidities will probably find a new opportunity in life and a new start. Opposite results were found in a research in Colombia.[7]

The elderly's mean quality of life score was positive (80.45±10.5), different from other studies involving institutionalized elderly.[7] It is important to consider this information, as the quality of life of elderly at long-term institutions is directly associated with the attention and the individual and specialized care they receive. It is also of great value to focus on interventions aimed at improving the mental and emotional health even further, strengthening the social support and controlling chronic illnesses, which are crucial factors to maintain these elderly's quality of life.

Although there is no consensus on the fact that frailty influences the individuals' quality of life negatively, there is a growing interest in studying quality of life in institutionalized frail elderly.[10] In this study, no correlation was found between frailty and quality of life (p=0.967).

As regards the facet "death and dying", high scores were identified in the WHOQOL-BREF (16.88±3.57), showing that the institutionalized elderly accept death well. Consenting with one's own finiteness can influence the quality of life since, as one ages, the death of the partner, family members and friends is an event the elderly expect. It is highlighted that low levels of qual-

ity of life are strong predictors of institutionalization, disabilities, physical frailties and death within one year.[11]

The lower mean quality of life score in the facet "intimacy" (10.52±4.31) can be explained by the characteristic of the long-term institutions for the elderly in this study, which consists of group rooms, without private space for couples. The intimacy is a very reserved activity; the elderly needs freedom and autonomy to practice it and, probably, they are impeded from expressing their freedom at the institution, protecting themselves and not demonstrating their feelings. Similarly, the prejudice of employees and health professionals towards sexuality in old age remains present, which aggravates the feeling of shame and the lack of initiative. Studies indicate the positive impact of an active sexual life on the elderly's quality of life.[12]

The institutionalized and frail elderly can experience transformations related to the loss of identity, autonomy and confidence, intensifying the state of solitude and the dependence for the basic activities of daily living. Autonomy is the ability to make decisions; therefore, even disabled elderly can be capable of responding for themselves. In this study, the facet "autonomy" showed a low correlation ($r=0.494$; $p<0.004$) with quality of life, diverging from other studies in which the facet "autonomy" scored lower, and a stronger association with quality of life.[7] It is highlighted that care delivery at the long-term institution, mainly to frail or weakening elderly, should be based on their inclusion in the decision process, through health measures and strategies, allowing them to serve as specialized subjects of their care, permitting the empowerment of the being.

The facet "past, present and future activities" was strongly correlated ($r=0.715$; $p<0.001$) with quality of life. This information points towards the elderly's satisfaction with the accomplishments, objectives achieved and life projects. It is inferred that most investigated elderly came from lower social classes and, consequently, lived with financial limitations, suffering inherent in the poverty conditions and did not have many aspirations, desires or motivations, thus affirming that they were satisfied with their conquests and had conformed to what was about to come. Thus, a good option to maintain this result would be the possibility of an environment as close to the elderly's home as possible, respecting their opinions, values, beliefs and attitudes, stimulating and favoring the reception and accomplishment of new perspectives.

Therefore, it is fundamental to assess the quality of life of institutionalized elderly, mainly when frail, as a topic in the multidimensional assessment of elderly people. The purpose is to intervene as early as possible, so as to avoid negative health outcomes, extend the years of life and turn the institution into an environment of comfort and wellbeing, contributing to the active aging and to a better quality of life.

Conclusion

The presence of frailty did not direct interfere in the quality of life of institutionalized elderly and showed a significant association with the motive of the institutionalization.

Collaborations

Cordeiro LM; Paulino JL; Bessa MEP; Borges CL and Leite SFP declare that they contributed to the conception of the study, analysis, data interpretation, writing of the article, relevant critical review of intellectual content and final approval of the version for publication.

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