DOI: 10.1590/1413-812320182311.21742016

Comparative study of quality of life of elderly nursing home residents and those attneding a day Center

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Abstract *The aim of this study was to compare the QOL of the elderly living in nursing homes and those who attend the Day Center (Centro Dia) at the the Asilo Vila Vicentina in the city of Bauru/SP. The sample consisted of 48 subjects, 21 men, 5 from the Day Center and 16 nursing home residents, and 27 women, 16 from the Day Center and 11 nursing homes residents, who answered the following questionnaires: socio-demographic characteristics, WHOQOL-Old, and WHOQOL-Bref. The responses were submitted to descriptive and inferential statistics to compare the QOL scores of the nursing home residents with the elderly who attend the Day Center using the Mann Whitney test. The results showed better QOL scores for the elderly who attend the Day Center, in which women stood out. Among the institutionalized elderly, women presented the worst QOL values, particularly in the Physical and Psychological domains. The domains with the lowest scores were Environment (42.6 ± 10.7 for women in nursing homes and 44.4 ± 9.7 for men at the Day Center) and Intimacy (13.1 ± 17.3 for women in nursing homes and 9.4 ± 22.7 for men in nursing homes). The domains with the highest scores were Social Affairs (74.0 ± 13.6 for women at the Day Center and 68.3 ± 10.9 for men at the Day Center) and Death/Dying (83.6 ± 22.0 for women at the Day Center and 80.0 ± 32.6 for men at the Day Center).*

Key words *Quality of life, Health of Institutionalized elderly, Homes for the aged*

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Introduction

The Pan American Health Organization (PAHO) considers aging "a sequential, individual, cumulative, irreversible, universal, non-pathological process of deterioration of a mature organism typical to all members of a species, so that over time individuals are less able to cope with the stress of the environment and, therefore, present an increased chance of death"[1]. According to the Brazilian Institute of Geography and Statistics (IBGE), the population aged over 60 years in Brazil, which was 14.9 million in 2013 (7.4% of the total), is expected to rise to 58.4 million (26.7% of the total), in 2060, with an increase in the average life expectancy of Brazilians from 75 to 81 years[2]. Globally, there will be around two billion people in this age group, with the majority living in developing countries[3].

Faced with this process of increasing survival of the population, the importance of guaranteeing the elderly not only greater longevity, but also happiness, personal satisfaction, and quality of life (QOL) is highlighted. The World Health Organization (WHO) defines QOL as "the individual's perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards, and concerns"[4].

QOL is a complex phenomenon, subjective and with multiple aspects, and therefore difficult to interpret. It involves the individual judgment of some specific domains of life such as self-esteem and personal well-being, covering aspects related to functional capacity, socioeconomic level, emotional state, social interaction, intellectual activity, self-care, family support, health, sexual function, cultural, ethical, and religious values[5], lifestyle, satisfaction with the job and/or daily activities, and the environment in which one lives[6-8].

Living with family members is essential for maintaining the QOL of the elderly, as it brings them security and a sense of love/recognition. On the other hand, it can be highly detrimental when the family lacks the resources and patience to deal with the consequence of senility and senescence, negatively affecting QOL. Thus, if the elderly individual does not have family bonds or the financial conditions to hire the services of a private caregiver, staying in a Long Stay Institution for the Elderly (LSIE) becomes the only option, making the individual totally or partially dependent on care provided by caregivers at the institution[9-11].

Even when good family bonds exist and the family welcomes the elderly individuals, it is indispensable that they participate in activities that keep them physically and psychically active, aiming to increase life quality and expectancy, as well as controlling loneliness. Thus, as a service modality of social protection, Day Care Centers or Coexistence Centers for Elderly People were created, offering multi-professional day care for the elderly, with actions to promote and protect the health and socialization of the clients[12-15].

When evaluating the QOL of the elderly in nursing homes, some studies show positive aspects of institutionalization, such as adherence to pharmacotherapy[16], improvement in social life[17], easing of depressive symptoms[18], and participation in leisure activities which benefit locomotion[19]. On the other hand, other studies point to a lower QOL of elderly people in LSIEs, noting their dissatisfaction with the capacity to make decisions[20], a monotonous life[21], loss of physical and mental autonomy[22], and nutritional deviations, covering both thinness and excess weight[23].

Research comparing the QOL of both institutionalized and non-institutionalized individuals reveals that those who are institutionalized have a poorer perception of QOL, possibly due to factors that cause institutionalization and influence judgment, such as age, sex, education, lifestyle, autonomy, and social participation. Among the domains evaluated in QOL questionnaires, autonomy and environmental aspects usually least satisfy the elderly living in LSIEs[14,19,24,25].

QOL in old age is not an individual, biological, or psychological attribute, or an individual responsibility, but a product of the interaction between people living in a changing society. Thus, investigating the QOL of LSIE residents and Day Center regulars is essential to ascertain the impact of institutionalization and daily attendance at a specific activity center for the elderly on their lives, to awaken society to the need to prepare the country for more humanized care of its elderly.

In this way, the objective of this study was to compare the quality of life of elderly residents in nursing homes and attendees at the Vila Vicentina Day Center, in the city of Bauru/SP.

Methods

This is a cross-sectional study of a quantitative nature, developed at the Vila Vicentina Abrigo LSIE for the Elderly of Bauru/SP, after authorization from the administration of the institute,

as well as from the Committee of Ethics and Research with Human Beings of the University of the Sacred Heart under opinion no. 692.673. The elderly residents of the nursing home and attendees at the Day Center were included. The interviews took place in the offices of the institution from November 2013 to March 2014. To accomplish the interviews, clarification was provided to the elderly about the objectives of the research, and guidance on how to respond to the questionnaires, and those who agreed to participate signed the Term of Free and Informed Consent.

The Vila Vicentina in Bauru[26], a philanthropic entity affiliated with the Federal, State, and Municipal spheres, forms part of the LSIE and also provides the service of a Day Center, offering main meals and care from health professionals, and motor, physical, and leisure activities throughout the day.

The total sample was composed of 49 nursing home residents and 21 Day Center attendees. Twenty-one nursing home residents were excluded due to cognitive disorders and hearing and language difficulties, as well as the use of antidepressant medications, an advanced degree of Alzheimer's, and refusals. Thus, the interviews were conducted with 48 elderly individuals, 27 residents (11 women and 16 men) and 21 Day Center attendees (16 women and 5 men).

A data collection instrument was used for the socio-demographic characterization (sex, ethnicity, years of study, use of TV, number of diseases, and performance of domestic activities), and two questionnaires to evaluate QOL, the WHOQOL-Bref and WHOQOL-Old, which, according to indications from the WHO, should be answered jointly.

The WHOQOL-Bref contains 26 questions, one regarding global QOL (Self-assessment), one for satisfaction with health, and 24 questions that enable the calculation of scores to represent four domains: Physical, Psychological, Social Relations, and Environment. Each domain is composed of dimensions, so that the Physical domain encompasses Pain and discomfort, Energy and fatigue, Sleep and rest, Mobility, Daily life activities, Dependence on medication or treatments, and Ability to work; the Psychological domain includes Positive feelings, Thinking/learning/memory/concentration, Self-esteem, Body image and appearance, Negative feelings, and Spirituality/religion/personal beliefs; Social Relations encompasses Personal relationships, Social Support (Support), and Sexual activity; the Environment domain includes Physical security and protection, the Home environment, Financial resources, Health and social care: availability and quality, Opportunities to acquire new information and skills, Participation and recreation/leisure opportunities, and the Physical environment: (pollution/noise/traffic/climate), and Transport[27].

The WHOQOL-Old constitutes a complementary module of generic measures of QOL in older adults for international/cross-cultural use. It consists of 24 Likert scale items assigned to six dimensions: Sensory abilities (sensory functioning, impact of loss of sensory abilities on quality of life), Autonomy (independence in old age, ability or freedom to live autonomously and make decisions), Past, Present, and Future activities (satisfaction with achievements in life and the individual's desires), Social Participation (participation in everyday activities, especially in the community), Death and Dying (worries, concerns, and fears about death and dying), and Intimacy (ability to have personal and intimate relationships). Scores of these six dimensions can be combined to produce a general - OLD - score which represents the QOL of the elderly individual[28,29].

The QOL scores, for both questionnaires, are constituted as a positive scale, that is, the higher the score the better the QOL, and there are no cut-off points to evaluate the quality of life as "good" or "bad".

For the statistical analysis, *Statistical Package for Social Sciences* (SPSS) software version 17.0 was used[30]. The sociodemographic variables were analyzed by means of absolute and relative frequencies. The WHOQOL-Bref domains and WHOQOL-Old dimensions were analyzed in isolation and consolidated with their respective syntax. For the comparison of the nursing home residents and attendees of the Day Center, the non-parametric Mann Whitney test was used, and since the normality of the distribution was not verified – the Kolmogorov-Smirnov test. The Spearman correlation coefficient was calculated between the WHOQOL-Bref domains and the global QOL, as well as between the WHOQOL-Old dimensions and the OLD variable. Multiple linear regression analysis models were constructed to verify the contribution of the domains of the global QOL and dimensions of the OLD[31]. All analyzes were performed at the 5% level of significance.

Results

The socio-demographic profile of the elderly participants, according to sex, ethnicity, years of study, TV use, number of diseases, and domestic activities are shown in Table 1. The mean age of the men was 75.4 ± 8.7 years and the women 79.4 ± 9.6 years. It should be noted that the sex variable had a higher incidence of men in the nursing home (59.3%) and women attending the Day Center (76.2%); the majority of participants were white (74.1% - care home and 81.0% - Day Center) and had studied for up to 1 year (51.9% - care home and 47.6% - Day Center), highlighting that 3 elderly individuals had completed higher education (2 nursing home residents).

All the Day Center attendees watched TV, while amongst the nursing home residents, 74.1% (20) watched TV. No participants reported using a computer. All the elderly reported some type of illness, with the attendees of the Day Center reporting a higher quantity - 71.4% (15).

The results of the WHOQOL-Bref questionnaire - Table 2 - showed that there were no significant differences between the domains and the self-assessment of QOL between the men attending the Day Center and the nursing home residents, who, in turn, presented mean values above 60.0, except for the Environment domain. Among the women, there were statistically significant differences in the Physical and Psychological domains. There were also lower mean values of scores in all domains for female residents of the nursing home. There was a considerable difference in the level of satisfaction in the Physical (69.0 ± 17.1 among attendees of the Day Center against 45.5 ± 12.3 among nursing home residents) and Psychological domains (72.4 ± 15.1 in the Day Center versus 48.1 ± 12.7 among nursing home residents). The lowest values of the scores were determined in the Environment domain for the two modalities of bonding and sex.

The analysis of the quality of life questionnaire, WHOQOL-Old (Table 3), allowed verification that among the men there were statistically significant differences in the Intimacy (the Day Center elderly attendees presented a score of 56.3 ± 29.3 against 9.4 ± 22.7 in the nursing home residents) and OLD dimensions, while for women, in the Autonomy, Past, Present, and Future Activities, Social Participation, Intimacy, and OLD dimensions.

In the same way as in the WHOQOL-Bref, the mean values of the scores were lower for nursing home residents in all domains. For the women, the domains Autonomy (62.5 ± 20.8 for Day Center attendees versus 31.3 ± 9.3 among the nursing home residents), Past, Present, and Future Activities (69.5 ± 11.6 for those of the Day Center against 46.0 ± 15.4 of the nursing home residents), Social Participation (72.7 ± 10.7 among Day Center attendees versus 44.9 ± 17.9 nursing home residents), Intimacy (mean score of 38.3 ± 31.3 among Day Center attendees versus 13.1 ± 17.3 among nursing home residents), and OLD (mean of 65.5 ± 12.3 for Day Center attendees versus 44.0 ± 10.8 for nursing home residents) stood out. The Death and Dying di-

Table 1. Absolute and relative frequencies of the variables sex, ethnicity, years of study, use of TV, number of diseases, and performance of domestic activities of the 48 elderly people - 21 Day Center attendees and 27 nursing home residents. Bauru/SP, 2014.

Variables	Responses	Day Center	Nursing Home Residents
Sex	Masculine	5 (23.8%)	16 (59.3%)
	Feminine	16 (76.2%)	11 (40.7%)
Ethnicity	White	17 (81.0%)	20 (74.1%)
	Black/Mixed	4 (19.0%)	7 (15.9%)
Years of study	Up to 1 year	10 (47.6%)	14 (51.9%)
	1 to 8 years	10 (47.6%)	11 (40.7%)
	Higher Education Complete	1 (4.8%)	2 (7.4%)
Watch TV	Yes	21 (100.0%)	20 (74.1%)
	No	0 (0.0%)	7 (25.9%)
Number of diseases	One	6 (28.6%)	19 (70.4%)
	Two or more	15 (71.4%)	8 (29.6%)
Perform household activities	No	12 (57.2%)	24 (88.9%)
	Yes	9 (42.8%)	3 (11.1%)

Table 2. Means and standard deviations of the comparison between the domains verified through the WHOQOL-Bref of the 21 Day Center attendees and 27 nursing home residents and result of the statistical test. Bauru/SP, 2014.

Domains	Sex	Groups	Mean ± SD	Mann Whitney Test
Physical	Masculine	Day Center	63.6 ± 16.0	*U = 32.500*
		Care Home Residents	67.0 ± 14.4	
	Feminine	Day Center	69.0 ± 17.1	*U = 23.000***
		Asilados	45,5 ± 12,3	
Psychological	Masculine	Day Center	65.8 ± 18.0	*U = 28.000*
		Care Home Residents	60.4 ± 13.8	
	Feminine	Day Center	72.4 ± 15.1	*U = 21.500***
		Care Home Residents	48.1 ± 12.7	
Social Relations	Masculine	Day Center	68.3 ± 10.9	*U = 29.500*
		Care Home Residents	60.9 ± 15.4	
	Feminine	Day Center	74.0 ± 13.6	*U = 58.500*
		Care Home Residents	62.1 ± 22.5	
Environment	Masculine	Day Center	44.4 ± 9.7	*U = 37.000*
		Care Home Residents	45.3 ± 10.9	
	Feminine	Day Center	51.0 ± 10.5	*U = 49.500*
		Care Home Residents	42,6 ± 10,7	
Self-evaluation	Masculine	Day Center	70.0 ± 19.0	*U = 36.500*
		Care Home Residents	73.4 ± 23.2	
	Feminine	Day Center	70.3 ± 17.0	*U = 74.500*
		Care Home Residents	67,0 ± 11,6	

* $p < 0.05$; ** $p < 0.01$.

mension presented the highest scores for the two types of bond and for both sexes (Table 3).

The Spearman correlation between the WHOQOL-Bref domains (Physical, Psychological, Social Relations, and Environment) and global QOL, considering the total number of elderly individuals, showed that all domains correlated positively and significantly with the global domain, although the correlations are of low magnitude. Thus, multiple linear regression analysis was performed to verify the contribution of each domain to the global QOL (dependent variable); the four domains together account for 40.5% of the global QOL. The Social Relations domain presented the lowest contribution (6.0%), followed by Psychological (7.5%) and Environment (9.9%), not presenting statistical significance. The domain that most impacted on the overall QOL is the Physical domain (17.1%), with a statistically significant difference (Table 4).

Table 5 presents the estimates of the Spearman correlation coefficients between the WHOQOL-Old dimensions (Sensory Skills, Autonomy, Past, Present, and Future Activities, Social Participation, Death and Dying, and Intimacy) and the OLD general score, considering the 48 elderly, demonstrating that all dimensions correlated positively and significantly with the OLD. In this way, multiple linear regression analysis was performed to verify the contribution of each dimension to the OLD (dependent variable); the 6 dimensions together explain 100.0% of the OLD. The Social Participation dimension contributed the highest percentage (25.3%), followed by Autonomy (23.6%), Past, present, and Future Activities (21.1%), Intimacy (17.2%), Death and Dying (7.8%), and Sensory Abilities (5.0%), with a statistically significant difference for all.

Discussion

The profile of elderly nursing home residents and Day Center attendees of the Vila Vicentina Institution of Bauru/SP was studied through sociodemographic variables, and the QOL was evaluated by the WHOQOL-Bref and WHOQOL-Old questionnaires.

The elderly Day Center attendees, independent of sex, presented higher QOL rates in comparison to the nursing home residents, since they had a broader life and social spectrum, a greater number of daily activities, and greater autonomy to execute them, contributing to higher self-es-

Table 3. Means and standard deviations of the comparison between the dimensions obtained through the WHOQOL-Old of the 21 Day Center attendees and 27 nursing home residents and result of the statistical test. Bauru/SP, 2014.

Domains	Sex	Groups	Mean ± SD	Mann Whitney Test
Sensory Skills	Masculine	Day Center	62.5 ± 33.4	*U = 35.500*
		Care Home Residents	73.4 ± 27.7	
	Feminine	Day Center	66.4 ± 27.4	*U = 72.000*
		Care Home Residents	57.4 ± 17.2	
Autonomy	Masculine	Day Center	62.5 ± 26.9	*U = 19.500*
		Care Home Residents	42.6 ± 14.7	
	Feminine	Day Center	62.5 ± 20.8	*U = 19.500***
		Care Home Residents	31.25 ± 9.3	
Past, present, and Future Activities	Masculine	Day Center	66.3 ± 16.3	*U = 22.000*
		Care Home Residents	53.5 ± 14.8	
	Feminine	Day Center	69.5 ± 11.6	*U = 17.000***
		Care Home Residents	46.0 ± 15.4	
Social participation	Masculine	Day Center	65.0 ± 13.7	*U = 24.000*
		Care Home Residents	57.0 ± 16.1	
	Feminine	Day Center	72.7 ± 10.7	*U = 17.500***
		Care Home Residents	44.9 ± 17.9	
Death & Dying	Masculine	Day Center	80.0 ± 32.6	*U = 32.000*
		Care Home Residents	77.0 ± 26.8	
	Feminine	Day Center	83.6 ± 22.0	*U = 72.000*
		Care Home Residents	71.6 ± 34.2	
Intimacy	Masculine	Day Center	56.3 ± 29.3	*U = 5.500***
		Care Home Residents	9.4 ± 22.7	
	Feminine	Day Center	38.3 ± 31.3	*U = 46.000**
		Care Home Residents	13.1 ± 17.3	
OLD	Masculine	Day Center	65.4 ± 9.2	*U = 12.000**
		Care Home Residents	52.2 ± 12.4	
	Feminine	Day Center	65.5 ± 12.3	*U = 16.000***
		Care Home Residents	44.0 ± 10.8	

* $p < 0.05$; ** $p < 0.01$.

Table 4. Estimates of Spearman's correlation coefficients and linear regression analysis between the WHOQOL-Bref domains and the overall quality of life of the 48 elderly subjects. Bauru/SP, 2014.

Domains	Global quality of life - Self-assessment		
	Correlation	Regression	
		R^2 (%)	β
			14.360#
Physical	0.511**	17.1	0.356*
Environment	0.495**	9.9	0.332
Psychological	0.552**	7.5	0.161
Social Relations	0.304*	6.0	0.129
R2 Total (%)		40.5	

#Constant Value; * $p < 0.05$; ** $p < 0.01$.

teem and even to a good level of health, which has been confirmed by other studies[13,23-25]. One important aspect for a better perception of QOL is the social life of the elderly, provided in the Day Center, where actions are established that promote the formation of groups for physical, leisure, cultural, and work activities, different from spending the whole day in the Institution, where the routine is usually monotonous and there is low autonomy in activities, limited social interaction, with, usually, few visits from family and friends. This contributes to low self-esteem and appreciation of QOL itself.

In addition, differences are observed in the estimates of what individuals consider to be QOL between women and men, with the highest QOL scores among men. This is also due, in general, to

Table 5. Estimates of Spearman's correlation coefficients and linear regression analysis between the WHOQOL-Old dimensions and the overall quality of life of the 48 elderly. Bauru/SP, 2014.

Dimensions	Overall score – OLD		
	Spearman Correlation	Regression	
		R^2 (%)	β
			-2.309E-14#
Social Participation	0.861**	25.3	0.167**
Autonomy	0.721**	23.6	0.167**
Past, present, and Future Activities	0.784**	21.1	0.167**
Intimacy	0.694**	17.2	0.167**
Death & Dying	0.463**	7.8	0.167**
Sensory Skills	0.361*	5.0	0.167**
R^2 Total (%)		100.0	

#Constant value; * $p < 0.05$; ** $p < 0.01$.

the different understanding of old age between the sexes. Women tend to feel much more concern about aging, feeling more uncomfortable with it, and understanding it as something negative and related to problems and limitations, dependence, finitude, ugliness, and fear[15,18,26,32]. Men, however, understand old age as a universal phenomenon, meaning retirement, dependency, and disease, so they become more accustomed to frailties, as well as being less exposed to physical and mental problems. In a study carried out in Minas Gerais[32], with 77 institutionalized elderly, higher scores were also evident for men in all domains of QOL in relation to women, as well as in Rio Grande do Sul, where 364 elderly people were interviewed[18] and in Paraíba together with 69 members of four nursing home institutions of João Pessoa[19].

The elderly had a low level of study, that is, 50% presented less than 1 year, and can be considered functionally illiterate[2], demonstrating the life culture and time in which these elderly studied when young. Many stopped studying early to assist in work activities and support the household in the case of men, and little importance was given to the education of women at that time. According to the IBGE[2], one of the marked characteristics of the Brazilian elderly population is their low educational level, considering that about 25% of the Brazilian elderly population is illiterate. It can be inferred that, generally, the higher the education level, the greater the notion of the world around and capacity for self-assessment of the level of their QOL, as identified in other studies[13,15-17,23,24].

It was observed that the elderly practiced few domestic activities, even those who attended the Day Center, making them feel less capable, which can develop into sadness and dissatisfaction with their situation, also influencing the low evaluation of QOL. Some studies also point out the high sedentary behavior that characterizes the elderly population, motivated by damages to the structural and physiological system resulting from aging, as well as from institutionalization itself, leading to functional disability[16,18,32-34].

The results of the WHOQOL-Bref questionnaire demonstrated that the Day Center attendees presented higher scores in relation to the nursing home residents in all domains, highlighting large differences between the mean scores in the Physical and Psychological domains.

When analyzing the contribution of the different domains to the global QOL, it was observed that the contribution of the four domains together was 40.5%, and that the domains differed regarding their individual contribution to the global QOL, with Physical domain contributing the most (17.1%), followed by Environment (9.9%), Psychological (7.5%), and Social Relations (6.0%), although the last 3 did not present statistically significant differences.

Functional capacity, autonomy, and independence, assessed in the Physical domain, are important factors concerning the impact on QOL in the elderly, confirmed by linear regression, with a significant difference for women, a fact that may be related to the fear of depending on other people in adulthood. A similar result was found in a study carried out in Rio Grande do Sul among elderly individuals with functional disability, who showed a 36.1-fold higher risk of presenting a worse QOL in the Physical domain than those with no disability[35].

The elderly women of today are usually those who, before old age, had a routine of great family and professional importance, so when they go to live in institutions, they miss their relatives, friends, and domestic activities, to which they were accustomed, and no longer have the physical or mental capacity to perform, in addition to factors regarding forgetfulness and the feeling that older women are less attractive[15,18,36]. In this way, it is understandable that daily attendance of women at the Day Center allows them to feel physically and socially more active.

Regarding the Psychological aspect, very close mean values in domains were observed between the male nursing home residents and Day Center attendees, above 60.4, that is, institutionalization did not influence the perception of QOL of the elderly men, as also demonstrated in a study with 77 subjects in MG[32]. On the other hand, while the women of the Day Center presented a mean score of 72.4 ± 15.1, the female nursing home residents presented much lower scores, 48.1 ± 12.7. The experience of the nursing home for the elderly is related to the feeling of loss of freedom, identity, autonomy, and confidence, as well as abandonment by children and approaching death, intensifying the states of solitude and dependence, directly influencing the psychological aspect[19,37]. Studies carried out in the interior of São Paulo and Minas Gerais contradict this finding, emphasizing that social interaction and the practice of joint activities in the institution lead to psychological well-being, showing better scores in this domain[38,39].

In the area of Social Relations, no statistical difference was observed for either sex and the values of the scores were all above 60.9, although they were lower for the nursing home residents. Considering that this domain brings together interpersonal relationships and social support, it can be understood that the social losses to which the elderly are exposed, that is, everyday roles (professional, political, or family), are recompensed with the new activities at the Day Center and even in the Institution, not representing impairment in the QOL of the elderly, in the same way as the findings in the studies in 3 LSIEs in the interior of São Paulo[21], in Caxias do Sul/RS[22], and in the metropolitan region of São Paulo[13].

According to the WHO, the physical environment in which the elderly are located can determine the dependence or not of the individual[3]. Thus, it is likely that an elderly person is physically and socially active if he/she can walk safely on the Institution's premises, to the garden, or to sunbathe, in an accessible place, with appropriate footwear, and clean, as well as being arboraceous, quiet, comfortable, and cozy, as is the case of the LSIE in the present study, which also includes a chapel with daily masses. Unfortunately, the lowest values of scores were found in the Environment domain for the two modalities and sexes, being lower than 51.0, thus confirming the influence of physical aspects in the interaction with the environment. These results are contrary to those found in public and private LSIEs in the state of Rio Grande do Sul[39], with 148 elderly people in Santa Rita do Sapucaí[28], with 15 elderly participants of the coexistence group of Our Lady of Fatima[15], but are in agreement with other studies[23,35,40].

When analyzing the results of the WHOQOL-Old, it can be verified that the general OLD score was statistically significant for the two sexes between the modalities of bonding, with the lowest score (44.0 ± 10.8) standing out for the nursing home residents. Multiple linear regression analysis allowed verification that the 6 dimensions together explain 100.0% of the OLD, with Social Participation having the most impact (25.3%) and Sensory Abilities (5.0%) the lowest influence on the total score.

The WHOQOL-Old Social Participation dimension highlights participation in community activities, satisfaction with the level of daily activity, and the use of time. The elderly, especially women, consider it vital to maintain interpersonal relationships, to maintain strong ties with the family, contributing, if possible, to the education of children and grandchildren, as well as extending this to neighbors and friends, solidifying their social support network[5,8].

In the results of the present study, it was observed that the best scores in the dimensions of the Social Participation domain were related to Day Center attendees of both sexes.

Without statistical differences, with mean scores above 57.4 and minimal influence on the OLD score, the dimension Sensory Skills can be interpreted as an indication that the elderly in this study, in general, did not present sensorial losses that could affect their daily life, or their participation in the activities and interaction with the people residing in the Institution and attending the Day Center, agreeing with other studies[13,15,20,39].

The Intimacy dimension, which depicts the ability to have personal and intimate relationships, presented the worst QOL scores, including zero values, with a significant difference for both

sexes. For the male nursing home residents, this is the lowest value (9.4) among all dimensions, although in the overall performance of the dimension, women continue to stand out, as the mean score was higher (13.1), but the maximum and minimum values were between 0.0 and 50.0. Some authors emphasize that the sexual act itself may be less important in this age group than the possibility of intimacy, i.e., feelings of companionship and affection, and opportunities for loving and being loved[3,15,20,21]. However, if this dimension is analyzed from the point of view of sexuality, the poor scores are justified, as in other studies[36,39], since the characteristics of the LSIE do not allow private spaces for couples[23,41]. It is probable the evaluation of the intimacy for the elderly of the study, mainly for the women in the nursing home, was relative to sexuality, since the Social Relations (WHOQOL-Bref) domain scores were higher than 60.9 and the Social Participation dimension above 57.0, indicating no problems of companionship between men and women at the Day Center.

Some important differences were observed in the Autonomy dimension, with the nursing home residents having the lowest values, 42.6 and 31.3 for men and women, respectively. This dimension emphasizes independence in old age, the ability or freedom to live autonomously and make decisions, relating to the Physical domain, already evaluated with the lowest values for the female nursing home residents. Older people in an LSIE are usually passive with few occupational activities and initiative to accomplish something that fills their time. Similar results were observed in Rio Grande do Norte[20], Rio Grande do Sul[15], Minas Gerais[32], Piauí[34], Ceará[38], and São Paulo[39]. Physical or mental dependence greatly impairs the QOL of the elderly, constituting an important risk factor for mortality. In this way, all health promotion, care, and rehabilitation health initiatives should aim to value the autonomy and physical and mental independence of the elderly[5,13,42].

Past, Present, and Future activities were also lower for male and female nursing home residents, which shows a lack of perspective on the life in the nursing home, which no longer projects future activities and interests, due in part to physical dependence and lack of autonomy, previously demonstrated, and according to other studies carried out with institutionalized elderly[15,20,32,42]. This dimension points to the satisfaction of the elderly regarding their achievements, goals realized, and projects during their life, pointing to a good QOL in some studies[38,39,40].

In the Death and Dying dimension, the mean scores were above 77.0 and 71.6 for men and women, respectively, indicating that the elderly in this study, regardless of whether they were institutionalized or not, were satisfied with their feelings, concerns, and fears about death and dying. It is probable that as they feel at the end of their lives, death represents something already expected and right for them and they have developed a coping mechanism in relation to life and the future, emphasizing the importance of spirituality, faith, and religiosity; results in agreement with others found in the literature[15,20,32,38,40].

The limitations of the study were related to its cross-sectional design, which did not allow a cause and effect relationship, and to retraction of the reality of a specific population without the possibility of generalization of the data. Nonetheless, the results should contribute to the increase in scientific evidence related to the theme QOL, aging and institutionalization, and to minimize the risks to which the institutionalized elderly are prone, by assessing the levels of fragility and QOL. Although the instruments used proved to be sensitive to the intended approach, to deepen the subject studied it would be interesting to conduct a qualitative study through a semi-structured interview for particularization of the subjects and better details of the domains and dimensions involved in the determination of QOL.

Final considerations

The results enabled verification of better mean QOL scores for the elderly in the Day Center, where women stood out. Among the institutionalized elderly, women presented the worst QOL values. The domains with lowest scores were Environment and Intimacy, while the highest were Social Relationships and Death and Dying for the two types of bond with the Institution and both sexes.

The domains that most contributed to the total QOL scores were the Physical (ascertained in the WHOQOL-Bref) and Social Participation domains (WHOQOL-Old). The greater influence of the Physical domain on the global QOL emphasizes the importance of promoting activities that stimulate autonomy and independence, aiming at improvement in functional capacity and, consequently, QOL. These activities would also reinforce interpersonal relationships and social support, evaluated in the Social Participation domain, since one important aspect for a better

perception of QOL is the social interaction of the elderly, which occurs both in the Day Center and in the Institution.

The WHOQOL-Bref and WHOQOL-Old instruments were excellent indicators of the real situation of the elderly and were complemented in the analyzes, constituting valid and reliable instruments for the evaluation of the generic QOL of elderly Day Center attendees and nursing home residents, including taking into account the specificities of human aging.

It is considered that institutionalization does not lead to worsening in the elderly person's QOL, but rather that the perception of this quality may already be compromised when institutionalization is sought. On the other hand, the care provided at the Day Center aided improvement or maintenance of the QOL of the participants, proving to be a promising alternative of modality of service for the health of the elderly. In view of the variability of the concept of QOL and its subjectivity, in order to guide policies towards successful aging, it seems essential to know what, for the majority of the elderly, is related to well being, happiness, personal fulfillment, and finally, QOL in this age group.

Collaborations

SFAP Simeão: Formulation and design of the study, analysis and interpretation of the data. GAL Martins: Formulation and design of the study and data collection. MAN Gatti: Interpretation of data and final review. MHS De Conti and SN Marta: Final review. A De Vitta: Data analysis and interpretation, and final review.

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Article submitted 20/04/2016
Approved 23/11/2016
Final version submitted 25/11/2016