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# Elderly quality of life under a family health strategy team

# Qualidade de vida de idosos na estratégia saúde da família

# Calidad de vida de ancianos en la estrategia de salud de la família

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**Gerson de Souza Santos**[1]
**Tamara Iwanow Cianciarulo**[2]

This study aims at evaluating the quality of life of elders who live in an area covered by the Family Health Strategy of the municipality of Guarulhos-SP, Brazil. Three questionnaires were applied: one specifically created to characterize the population and the socio-sanitary characteristics; the WHOQOL-Bref, to assess quality of life; and the WHOQOL-Old, specific to elders. A descriptive analysis, Student's t-test and ANOVA F-Tukey ($p<0.05$) test were done. There was a prevalence of females and people in the age group between 60-69 years of age, with low education and family income. The highest quality of life score was observed in the physical domain of the WHOQOL-Bref. The facets "sensory functioning" and "death and dying" obtained the highest scores. There was no statistical difference between males and females. Well-being in old age is related to the balance between various dimensions of quality of life.
**Descriptors:** Quality of life; Aging; Aged.

Este estudo tem como objetivo avaliar a qualidade de vida de idosos residentes em uma área de abrangência da Estratégia Saúde da Família do município de Guarulhos-SP. Foram aplicados três questionários: um criado especificamente para caracterizar a população quanto às características sóciossanitárias, WHOQOL-Bref para avaliar QV e WHOQOL-Old especifico para idosos. Procedeu-se a análise descritiva, teste t-Student e ANOVA-F Tukey ($p<0,05$). Predominou o sexo feminino e a faixa etária de 60 a 69 anos, baixa escolaridade e renda familiar. O maior escore de QV observou-se no domínio físico no WHOQOL-Bref. As facetas funcionamento do sensório obtiveram melhor escore. Não houve diferença estatística na comparação entre homens e mulheres. O bem-estar na velhice está relacionado com o equilíbrio entre várias dimensões da qualidade de vida.
**Descritores:** Qualidade de vida; Envelhecimento; Idoso.

Este estudio tiene como objetivo evaluar la calidad de vida de los ancianos residentes en un área de cobertura de la Estrategia Salud de la Familia, en el municipio de Guarulhos-SP, Brasil. Se aplicaron tres cuestionarios: uno creado específicamente para caracterizar la población y las características socio-sanitarias, WHOQOL-Bref para evaluar la calidad de vida y WHOQOL-Old específico para ancianos. Se procedió a un análisis descriptivo, prueba t-Student y ANOVA F-Tukey ($p<0,05$). Predominó el sexo femenino y el grupo etario de 60 a 69 años, baja escolaridad e ingresos familiares escasos. El escore más alto de calidad de vida se observó en los dominio físico de la prueba WHOQOL-Bref. Las facetas del funcionamiento sensorial obtuvieron mayor puntuación en la prueba WHOQOL-Old. No hubo diferencia estadística en la comparación entre hombres y mujeres. El bienestar en la vejez se relaciona con el equilibrio entre las distintas dimensiones de la calidad de vida.
**Descriptores:** Calidad de vida; Envejecimiento; Anciano.

[1] Nurse. Master in nursing. Doctor in Health Sciences. Society for the Development of Medicine (SPDM). enf.gerson@hotmail.com. Brazil.
[2] Doctor in Social Sciences. Researcher at the University of Mogi das Cruzes. iwanow.c@uol.com.br. Brazil.

## INTRODUCTION

The fast aging of the peoples of the world challenges Government authorities in several countries. It is estimated that the number of elderly people in the world was about 810 million in 2012, and should reach 1 billion in less than 10 years, doubling by 2050. This becomes even more alarming when we consider that 80% of these longevous people will be living in less developed places[1].

In 2000, the proportion of individuals with 60 years or more in Brazil was 8.6% of the total population, compared to 7.3% in 1991. Projections indicate that the elderly population will be greater than 26.2 million people in 2020, representing almost 12.4% of the total population [2].

Researchers recognize that medical advances have contributed to the increase in the life span of the population; however, the main reason for this increase is associated to a higher quality of life. Although it is still far from the ideal, if the conditions of life today are compared to those of 60 years ago, several improvements can be noticed: in nutrition, levels of personal hygiene, general sanitary conditions, work conditions and residences. In Brazil and in other American countries, this set of factors is demographically expressed by the reduction in mortality rates, particularly in the early years of life[3].

The increase in life expectancy, the development of technology, globalization and democratic access to information have changed the profile of the individual of the 21st century, not to mention macro societal changes. The search for quality of life became a constant, which extrapolates social, cultural and economic classes, and even the chronology of people's lives[3,4]. In this context, quality of life in the old age is an important concept, since today, in Brazil, there is a new social sensitivity to old age, whether considered as a problem or as a challenge to individuals and to society[5].

Although there is a consensus on the importance of assessing quality of life in old age, its concept is still part of an ongoing debate[6,7]. To the World Health Organization (WHO)[8], quality of life is defined as "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". The concept of quality of life is broad and incorporates, in a complex manner, physical health, psychological state, level of independence, social relationships, personal beliefs and one's relationship with significant aspects of the environment [9]. Thus evaluating the aspects of the quality of life of the elderly is of great scientific and social importance, as it allows for the use of valid strategies for the intervention in local health programs, public and social policies, and alternative interventions such as geriatric programs, aiming at promoting the well-being of this group of people who, both nowadays and in the future, constitutes a great percentage of the population. This study aims at evaluating the quality of life of the elders who live in the area covered by a Family Health Strategy in the municipality of Guarulhos-SP.

## METHOD

This is a cross-sectional study conducted with elderly people aged 60 or older, assisted by a team from the Family Health Strategy of the municipality of Guarulhos-SP. Data collection took place in the house of the elders. 100 elderly people of both genders participated in this study. Data collection took place from March to May, 2010. The following inclusion criteria was established for this study: being 60 years old or older, living inside the area within the scope of the Family Health Strategy, and being literate.

The studied variables were: gender, age, marital status, family arrangement, skin color, education, household income, retirement, chronic diseases, type of house, religion, participation in physical activities and recreation.

In order to evaluate the quality of life of the elders, the Generic WHOQOL-Bref Questionnaire was used. It is an abbreviated

version of WHOQOL-100 instrument, which was developed by the quality of life team from the World Health Organization. This instrument evaluates four areas: physical health, psychological, social relationships, and environment, including issues of overall quality of life assessment[10].

The Generic WHOQOL-Old[11] questionnaire was developed by study group (The World Health Organization Quality of Life) of the World Health Organization. This questionnaire consists of 24 items, with scale type Likert answers (psychometric response *scale* commonly used in questionnaires) from 1 to 5, divided into six facets. Each of them consists of four items, producing as such scores which range from 4 to 20 points. The scores of the facets, combined with the answers to the 24 items also generate a total score. Facets are: sensory abilities; autonomy; past, present and future activities; social participation; death and dying; and, intimacy.

Data were submitted to simple frequency descriptive analysis. Each domain of the WHOQOL-Bref and facet of the WHOQOL-Old were analyzed separately and consolidated in the software Statistical Package for the Social Sciences (SPSS) version 17.0, with their respective syntaxes. To compare the quality of life, the t Student test was used, and in order to compare the age groups and the number of comorbidities, the ANOVA F and Tukey ($p < 0.05$) test was used[12,13].

Complying with the Resolution 196/96, which regulates the research with human beings, the project for this research was evaluated and approved by the Committee of Ethics in Research at the University of Guarulhos, and it was approved by the Ruling 41/2009.

## RESULTS

Regarding the social and sanitary characteristics of the 100 elders studied, 69% are female. Age has varied from 60 to 90 years old, averaging at 69 (sd=6.2 y/o). Among the elders in the research, 39% had white sking, while all the others were black or brown skinned. Regarding marital status, 56% did not have a partner, that being a sum from the total of widows, single, and divorced elders. As for the family arrangement, 46% lived alone, and the others lived with their spouses, children and grand-children (Table 1).

Low education levels were frequent and the sample was mostly (60%) constituted by elders with an incomplete elementary school. Regarding chronic diseases, a high prevalence of elders with hypertension was observed (57%). 51% of the participants were retired, 87% earned from one to three minimum wages, and 55% lived in their own houses. An evaluation of their lifestyle showed that 90% of the elders did not participate in any leisure activities, and 63% did not practice any physical activity (Table 1).

In table 2 the results of the evaluation of quality of life through the WHOQOL-Bref are described, indicating a low overall quality of life score (2.860 average ). The worst quality of life score was observed in the social domain (10.575 average). In the WHOQOL-Old evaluation, the facets "social" and "autonomy" obtained the worst scores (10.83 average in both). The facet "sensory abilities" presented the highest score in the evaluation (13.63 average) (Table 3). When comparing the genders, considering the WHOQOL-Bref domains and the WHOQOL-Old facets, there was no statistically significant difference (Table 4).

**Table 1.** Demographic, socioeconomic, lifestyle and health characteristics among the elderly residents in an area in the scope of a Family Health Strategy. Guarulhos-SP, 2010.

| Variables | n | % |
|---|---|---|
| **Gender** | | |
| Male | 69 | 69 |
| Female | 31 | 31 |
| **Age** | | |
| 60-69 | 65 | 65 |
| 70-79 | 25 | 25 |
| 80 or older | 10 | 10 |
| **Marital status** | | |
| Married | 44 | 44 |
| Single | 14 | 14 |
| Widower | 28 | 28 |
| Divorced | 14 | 14 |
| **Family arrangement** | | |
| Lives only with spouse | 44 | 44 |
| Lives with children and grandchildren | 10 | 10 |
| Lives alone | 46 | 46 |
| **Skin color** | | |
| White | 40 | 40 |
| Brown | 38 | 38 |
| Black | 22 | 22 |
| **Education** | | |
| Incomplete elementary school | 60 | 60 |
| Literate | 40 | 40 |
| **Family Income** | | |
| 1-3 minimum wages | 87 | 87 |
| 4-6 minimum wages | 13 | 13 |
| **Retired** | | |
| Yes | 51 | 51 |
| No | 49 | 49 |
| **Chronic diseases** | | |
| Hypertension | 57 | 57 |
| Diabetes | 29 | 29 |
| Depression | 21 | 21 |
| **Type of house** | | |
| Owned | 55 | 55 |
| Rented | 24 | 24 |
| Ceded | 21 | 21 |
| **Religion** | | |
| Catholic | 62 | 62 |
| Protestant | 22 | 22 |
| Other | 16 | 16 |
| **Physical activity** | | |
| No | 63 | 63 |
| Yes | 37 | 37 |
| **Participation in leisure activities** | | |
| No | 90 | 90 |
| Yes | 10 | 10 |

**Table 2**. Descriptive measures for the domains of the WHOQOL-Bref Scale, regarding the elderly residents in an area within the scope of a Family Health Strategy. Guarulhos-SP, 2010.

| Domain | N | Average | Standard deviation | Minimum | Maximum | Median | 1° quartile | 3° quartile |
|---|---|---|---|---|---|---|---|---|
| Physical | 100 | 11.926 | 2.2591 | 6.3 | 17.7 | 11.429 | 10.429 | 13.714 |
| Psychological | 100 | 11.007 | 2.2850 | 6.0 | 24.7 | 11.333 | 10.000 | 12.000 |
| Social | 100 | 10.573 | 3.2893 | 5.3 | 20.0 | 10.667 | 8.000 | 12.000 |
| Environment | 100 | 11.245 | 2.0257 | 7.0 | 16.5 | 11.250 | 9.500 | 13.000 |
| General | 100 | 2.860 | 1.0567 | 1.0 | 6.5 | 2.500 | 2.000 | 3.500 |

**Table 3.** Descriptive measures for the facets of the WHOQOL-Old Assessment, regarding the elderly residents in an area within the scope of a Family Health Strategy. Guarulhos-SP, 2010.

| Facets | N | Average | Standard deviation | Minimum | Maximum | Median | 1° quartile | 3° quartile |
|---|---|---|---|---|---|---|---|---|
| Sensory functioning | 100 | 13.63 | 2.665 | 6 | 19 | 14.00 | 12.00 | 16.00 |
| Autonomy | 100 | 10.83 | 2.889 | 5 | 19 | 11.00 | 9.00 | 13.00 |
| Past, present and future activities | 100 | 11.35 | 2.350 | 7 | 19 | 11.00 | 10.00 | 13.00 |
| Social participation | 100 | 10.83 | 2.889 | 5 | 19 | 11.00 | 9.00 | 12.00 |
| Death and dying | 100 | 12.49 | 3.268 | 4 | 19 | 13.00 | 10.00 | 15.00 |
| Intimacy | 100 | 11.64 | 3.199 | 4 | 20 | 11.00 | 10.00 | 13.00 |

**Table 4**. Comparison between the genders in the domains of WHOQOL-Bref and facets of WHOQOL-Old. Elderly who reside in an area in the scope of a Family Health Strategy. Guarulhos-SP, 2010.

| | Gender | | | | p-value |
|---|---|---|---|---|---|
| | Male (N = 31) | | Female (N = 69) | | |
| Physical Domain | 11.74 | 2.346 | 12.01 | 2.231 | 0.588 |
| Environment Domain | 11.13 | 2.202 | 11.30 | 1.956 | 0.703 |
| Psychological Domain ** | 11.33 | (9.3-11.3) | 11.33 | (10.0-12.0) | 0.299 |
| Social Domain ** | 10.67 | (8.0-13.3) | 10.67 | (8.0-12.0) | 0.848 |
| General ** | 2.50 | (2.0-4.0) | 2.50 | (2.0-3.5) | 0.409 |
| Sensory functioning facet | 13.42 | 2.742 | 13.72 | 2.645 | 0.599 |
| Autonomy facet | 10.71 | 2.735 | 11.12 | 2.564 | 0.475 |
| Social participation facet | 10.68 | 3.166 | 10.90 | 2.777 | 0.725 |
| Death and dying facet | 13.00 | 2.933 | 12.26 | 3.403 | 0.298 |
| Past, present and future activities facet** | 11.00 | (9.0-13.0) | 11.00 | (10.0-13.0) | 0.638 |
| Intimacy facet** | 11.00 | (10.0-14.0) | 11.00 | (10.0-13.0) | 0.241 |

* Student t Test, averages and standard deviations; ** Mann-Whitney Test, medians and inter-quartile ranges.

## DISCUSSION

The socioeconomic and demographic profile of the seniors surveyed is similar to that found in a study carried out in São Paulo, with samples from the houses of elderly population [14], and to that of other studies in Florianópolis and in Rio Grande do Sul, in areas covered by [15,16] Family Health teams.

As in other Brazilian studies involving elders[16,17], there was a prevalence of female participants. Although the increase in life expectancy at birth can be observed for both sexes, the rate of survival of women is still superior to that of men, considering regional differences[18]. Moreover, women tend to look for health services more often.

Greater longevity can explain the higher percentage of elder women without a partner found by this investigation. As a result of gender inequality in life expectancy, there is a higher proportion of elder women than men. Another feature of this population is that there is a higher proportion of widows than in any

other[19]. One of the reasons for this could be that, traditionally, women tend to marry men who are older than them, which, associated to a greater mortality rate among men, increases the probability that a woman would survive her spouse[19].

Almost half the elders in the research lived alone. Regarding this issue, recent studies have found that, specifically among elders, the familial or domestic situation reflects the accumulated effect of demographic, socioeconomic and health events which happened in previous stages of their life cycle. The size of their offspring, the differential mortality, celibacy, widowhood, divorces, remarriages, and migrations form, a long time, different types of family arrangements, which can leave the elder in a situation of security or vulnerability, from an emotional and material perspective[20,21].

The education levels were low, which is a social condition which works to the detriment of the elder, since it influences in the access to health services, in opportunities of social interactions, and in the understanding of their treatment and self-care, among other things. Low education was also a highlight in the study carried out by the project SABE, in the municipality of São Paulo, which also showed that the elders with lower education also presented worse health conditions, were more socially excluded, and had less information and socioeconomic conditions to access services precociously[22].

Low education can also be linked to socioeconomic disadvantages. While recognizing the limitations of this study regarding the generalizations of these results, other investigations found elderly people in similar conditions in the State of São Paulo in Brazil. In an investigation conducted in the city of Campinas-SP, 41% of the elders had financial conditions similar to the level presented in this study[23].

Even though the elders have a low income, most of them had their own houses, as this region was invaded by them in the past, and sometime after that, their possession over the houses was made legal by the municipal organs.

A high percentage of hypertension, diabetes mellitus and depression was identified. There is consensus that the main cause of morbidity and mortality in Brazil are chronic diseases, which usually develop slow and last for extensive periods of time, presenting long-term effects that are difficult to predict. Similarly to other rich countries, researchers suggest that complex conditions such as diabetes and depression will take an even greater toll in the future[24].

Physical inactivity was identified in more than half the elders, as well as an absence of participation in leisure activities. Other studies that had these issues as their focus identified that elderly people from lower socioeconomic backgrounds (evaluated by income or education level), are more sedentary and have less leisure habits[25]. On the other hand, people with less education tend to have unhealthy habits, since they have less access to information and to the conditions which would allow for them to develop behaviors that can be considered to be healthy[26].

In the analyses of the different domains of WHOQOL-Bref, the physical domain had the highest rank, followed by the environment, the psychological, and the social. A study that evaluated the quality of life of the elders in the municipality of Uberaba-MG found a different result when it comes to the physical domain, which presented the worst quality of life score[27].

The physical domain in the questionnaire WHOQOL-Bref evaluates items such as: pain and discomfort, energy and fatigue, sleep and rest, mobility, activities of daily living, dependence on medicinal substances and medical aids, and work capacity. As this study is dealing mostly with "young" elders, in the age group from 60 yo 69 years of age, the described items from the physical domain may not have interfered so much in the quality of life of the elders.

In the assessment of the quality of life through the WHOQOL-Old questionnaire, the

facet sensory functioning has shown the highest score. This facet corresponds to the senses (hearing, sight, taste, smell and touch) that interfere with daily life, the ability to participate in activities and the ability to interact with other people and family.

Family support contributes significantly to the maintenance and physical and psychological integrity of the individual. As long as the support is understood as available and satisfactory by the family member who receives it, its effect is seen as beneficial[28].

The facets autonomy and social participation presented the worst scores in the evaluation. While the former refers to the use of free time and the participation of the elderly in community activities, the second involves the freedom to make decisions, the feeling of control over their own future, the freedom to do what they like and feel respected when it comes to their freedom.

Considering the impact of aging on public policies, the Brazilian Government has approved laws aimed at active and healthy aging processes. With this end, the National Policy for the Health of the Older Person (PNSPI in the Brazilian acronym) was approved, and one of its goals is the promotion of autonomy, independence, integration and effective participation of the elder in society, not losing sight of their ability to exercise their citizenship, and the attention to their specific needs in the different levels of care in the SUS (Unified Health System)[29].

In this study, the social domain (WHOQOL-Bref) and the social participation facet (WHOQOL-old) showed lower scores. These results indicate that the elder participants of this study are dissatisfied with the social support they receive. Family Health teams can help by stimulating the elders to strengthen their social networks, formed by friends, relatives and neighbors, religious groups, unions, clubs and neighborhood associations, all of which enable for groups of people to establish relationships of solidarity and trust[30].

The major limitations of this study are: the sample in the scope of a Family Health Strategy may not accurately reflect the universe of elders who live in the community; the use of a generic instrument to measure the quality of life may not evaluate more specific aspects of the quality of life in old age; and the self-evaluation of morbidities may not indicate with precision the diagnoses of the evaluated individuals. On the other hand, such results may reflect similar realities in other regions.

## CONCLUSION

The elders who participated in this study were mostly women; their age group was from 60 to 69 years of age; with no spouse; low familiar income and education levels; hypertension, diabetes mellitus and depression; retired; living in several different family arrangements; physically inactive and with little participation in leisure activities.

The highest score in the evaluation of WHOQOL-Bref was in the physical domain, the lowest in the social domain, and the overall quality of life was low. The facet sensory functioning presented the highest score in quality of life according to the WHOQOL-Old. However, the facets autonomy and social participation presented the worst scores.

Well-being in old age is linked to the balance among various dimensions of the quality of life. The increase in the number of morbidities and in age significantly influence several domains and facets of the quality of life of elderly individuals. The WHOQOL-Bref questionnaire and the WHOQOL-Old have presented themselves as potential instruments for the evaluation of the quality of life in the Brazilian elderly population, showing themselves to be an alternative that could be incorporated in protocols for the health care of the elderly.

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**CONTRIBUITIONS**

**Gerson de Souza Santos,** participated in the conception of the research, data collection, data analysis and writing of the text. **Tamara Iwanow Cianciarullo,** oriented the research, its design, data analysis and did a critical review.

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