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Influence of sociodemographic characteristics and daily living habits on the quality of life of elderly participants in the social group of the Sinop / MT City

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Abstract: The Brazilian population is undergoing a demographic transition due to the decline in fertility rates and increased life expectancy, resulting in an aging population. This process requires a modification of public policies that address the needs of this population. The results of research on life quality have been used as an indicator of effectiveness and efficiency of interventions that have been carried out, which have shown relevance in the face of social transformations resulting from population aging. The objective of this study was to evaluate the influence of sociodemographic characteristics and daily living habits on the life quality of elderly who participate in social groups in the Sinop/MT city. This is an observational, qualitative, quantitative and exploratory study, conducted through direct interviews for convenience by WHOQOL-bref questionnaire and other specific sociodemographic questionnaire. Survey was conducted with a sample of 60 elderly, 30 men and 30 women, participants of the social group activities for at least six months. The results of this study indicate significant influence of physical activity, income, gender and consumption of alcoholic beverages with the domains of life quality. Among these factors, physical activity and income exerted strong influence in the areas of life quality, presenting significant difference in three of the four areas. Gender and consumption of alcoholic beverages had influence on only one domain. The observed results highlight the need to develop public policies and strategies that reduce the differences from income and promote the physical activity among the elderly in order to contribute to the equality of life of the same. We concluded that the healthy habits and good income might be important indicators to quality of life in elderly population.
Keywords: Quality of life, Elderly population, Sociodemographic profile

Introduction

In whole world, the elderly population is the age group with the highest growth rate. In Brazil, this process began between the 1940s and 1960s (LEÃO, 2007), and is now considered to be an aging country by the World Health Organization (WHO). The Brazilian population over 60 is estimated at 7% of the total population, and may reach 15% by 2025 (BRAZIL, 2010). The global demographic adjustment, led by the aging of the population, made it necessary to change the look on the meaning of old age. Before seen as the moment of rest, incapacity and solitude, the old age assumed the status of better age, moment of transformation, development of new abilities, attention to health and social relations (NASRI, 2008; KALACHE, 1987).

In order to resize society for the reception and guarantee of the rights of the elderly, public policies such as the creation of the Estatuto do Idoso were necessary (BRASIL, 2003; CENEVIVA, 2004). However, the recognition that the population is aging and changes in legislation do not address the entire elderly population. Aging implies significant changes in daily routine and quality of life, which manifest in a particular way in each individual and are a result of the lifestyle and habits adopted during the first stages of life (NASRI, 2008). This part of the population with different habits and levels of access to education, health, leisure and social integration, and therefore, requires differentiated attention so that the quality of life is ensured during old age NASRI, 2008; RAMOS; VERAS; KALACHE, 1987).

Currently, the authorities had used the quality of life indexes, considering the physical, psychological, social and environmental domains, to evaluate the efficiency of the interventions performed in society for the elderly by public health policies (CAMARANO; KANSO, 2009; OMS, 1997). However, in order to create effective strategies to promote the health and well-being of the elderly, the relationship between sociodemographic characteristics and quality of life needs better understood. Thus, the objective of this study was to

test the hypothesis that the sociodemographic profile and the habits of daily life influence the quality of life of the elderly in their physical, psychological, social and environmental domains.

Methods

The study population consisted of a convenience group, stratified by sex, with 60 individuals, 30 men and 30 women, participating in an exclusive social group for the elderly in the Sinop city, Mato Grosso state, Brazil. Were included in the study individuals aged 60 years or older who participated in the activities developed by the group for at least six months. All ethical procedures were respected and the confidentiality, privacy and image protection and information of the interviewees and the community were guaranteed. Prior to the beginning of the study, the participants signed the Free and Informed Consent Form (TCLE), which dealt with the criteria of free participation and guarantee of anonymity to the publication of research results.

This is an observational, qualitative, quantitative and exploratory study, performed through direct interviews conducted by trained interviewers. Prior to the start of the research, we conducted a pilot study with the elderly using the two instruments used to collect data on quality of life and sociodemographic information.

For this study, we created an own evaluation instrument to identify and characterize the sociodemographic profile of the population. The instrument considers the variables gender, age, schooling, monthly income, marital status, family arrangement and occupation, which correspond to the most relevant aspects of the population.

The other axis of the study, the evaluation of the quality of life, was through the instrument proposed by the World Health Organization Quality of Life (WHOQOL), WHOQOL-bref. The choice for this instrument is due to its reliability described in several national and international literature and studies that demonstrate a good response of the instrument to the evaluation and measurement of QV in groups of sick, healthy and elderly individuals. The instrument was composed of 26 questions, contemplating four domains of quality of life and evaluating the last two weeks of the individual regarding the physical capacity, psychological well-being, social relations and the environment in which it is inserted. At instrument, the physical domain consists of issues related to pain and discomfort, energy and fatigue, sleep and rest, mobility, activities of daily living, dependence on medication or treatments and work capacity, while the psychological domain is related to feelings positive, memory and concentration, self-esteem, body image and appearance, negative feelings and personal beliefs.

The domain of social relations is composed of issues related to personal relationships, social support and sexual activity, and the environment domain comprises issues related to physical security and protection, home environment, financial resources, health care, information and skills, opportunities of recreation and leisure, physical environment and transportation. All questions have four response scales: intensity (nothing - extremely), ability (nothing - completely), evaluation (very dissatisfied - very satisfied, very bad - very good) and frequency (never - always). Each of the alternatives corresponds to a numerical value from 1 to 5.

The WHOQOL-bref questionnaire is originally of high application. However, for this study, we chosen a direct verbal interview because of the possible difficulties (illiteracy, visual impairment, clinical condition) inherent to the studied population, to completing the questionnaire. The interview was conducted without any influence of the interviewer on the choice of answers, whether discussing the questions or using synonyms. When asked, the interviewer just re-read the questions, being the interviewee charged with the interpretation of the questions and elaboration of the answers.

We performed the domain score following the syntax proposed by the WHOQOL-bref Group and applied with the help of Microsoft Excel software, as previously described (PEDROSO, 2010). Sociodemographic characteristics and life habits versus domains of quality of life were tested for significance by Student's t-test or one-way ANOVA applying Bonferroni's correction. Discussion of the results occurred at a significance level of 5%.

Ethical principles

This study was submitted to the Research Ethics Committee of the Júlio Muller Hospital and was approved within the principles ethics and law under protocol 405.582.

Results

Table 1 presents the sociodemographic data of the study population. The mean age of the interviewees was 68.7 years. The predominant sociodemographic characteristics in this sample were: age group between 60 and 69 years (60%), schooling between 1 and 5 years (66.7%), individual monthly income of up to three minimum wages (66.7%), married status declared as having a fixed partner (51.7%), family arrangement characterized by living with more than one person (68.3%) and predominant occupation of retirees (71.7%).

Data on daily living habits are presented in Table 2. The results show that most of the respondents are adept at physical activity, where 65% of the sample reported practicing some kind of physical activity, of which 45% performed physical activities at least three times a week. In relation to consumption of alcoholic beverage, of the sample studied, 70% do not drink alcoholic beverages, and 23% do so only less than three times during the week. Regarding smoking, 95% of the interviewees declared themselves non-smokers.

Table 1. Sociodemographic characteristics of the elderly.

Characteristics	n	%
Gender		
Female	30	50,0
Male	30	50,0
Age range		
60-69 years	36	60,0
70-79 years	22	36,7
80 years or older	2	3,3
Schooling (years of study)		
illiterate	9	15,0
1-5 years	40	66,7
5 years or more	11	18,3
Monthly income		
Without income	1	1,6
Until 3 MW	40	66,7
3 MW or more	19	31,7
Marital status		
With mate	31	51,7
Without mate	29	48,3
Family arrangement		
Lives alone	19	31,7
Live with someone	41	68,3
Occupation		
Works	7	11,7
Does not work	10	16,7
Retired	43	71,7

n: individuals number. %: relative frequency. MW: minimum wage.

Table 2. Characterization of the habits of daily life of the elderly.

Characteristics	n	%
Physical activity practice		
Does not practice	21	35,0
Until three times a week	12	20,0
More than three times a week	27	45,0
Alcoholic beverages consumption		
Yes	18	30,0
No	42	70,0
Smoking		
Yes	3	5,0
No	57	95,0

Table 3 shows the distribution of the main diseases reported by the elderly with the percentage expressed in relation to the total number of reported diseases, and the same individual may have reported having one or more of a disease. Of the 60 elderly individuals studied, 18 (30%) reported not having any disease, while 42 (70%) reported having one or more diseases. Arterial hypertension was the most frequent pathology among the surveyed elderly subjects (46.3%), followed by diabetes mellitus (14.9%), deviation in the spine (9.0%), hypercholesterolemia (7.5%), osteoporosis (4.5%), hyperuricemia (3.0%), arrhythmia (1.5%), arthritis (1.5%), bursitis (1.5%), prostate cancer (1.5%), cataract (1.5%), cyst in the knee (1,5), gastritis (1.5%), insomnia (1.5%), hypothyroidism (1.5%) and herniated disc (1.5%).

Table 4 shows the influence of sociodemographic characteristics and daily habits on quality of life domains. We observed that the female sex presented a significant increase in the environmental domain when compared to the male. The variables marital status, schooling, smoking and illness did not show significance in any of the domains of QL. The income variable was significantly different in the physical, psychological and social domains showing that higher income, higher QL scores. Physical activity presented higher averages in the domains of QL among the practitioners when bought to non-practitioners of physical activity. Already alcoholic beverage consumption presented statistically significant results in the physical domain.

Table 3. Diseases presented by the elderly.

Disease presented	**n**	**%**
Arterial hypertension	31	46,3
Diabetes mellitus	10	14,9
Deviation in the column	6	9,0
Hypercholesterolemia	5	7,5
Osteoporosis	3	4,5
hyperuricemia	2	3,0
Arrhythmia	1	1,5
Arthritis	1	1,5
Bursite	1	1,5
Prostate cancer	1	1,5
Cataract	1	1,5
Knee cyst	1	1,5
Gastritis	1	1,5
Insomnia	1	1,5
hypothyroidism	1	1,5
Herniated Disc	1	1,5

%: relative frequency.

Table 4. Influence of sociodemographic characteristics and daily living habits in the domains of quality of life.

	Group	**Physical domain**	**Psychological domain**	**Social domain**	**Environmental domain**
Gender	Male	76 ± 16	80 ± 11	65 ± 17	65 ± 10
	Female	78 ± 12	84 ± 12	72 ± 15	71 ± 10*
Marital status	With mate	75 ± 17	80 ±13	69 ± 19	66 ±12
	Without mate	79 ± 11	84 ± 10	68 ± 13	70 ± 8
Schooling	≥ 5 years	78 ± 11	84 ± 12	75 ± 14	71 ± 10
	< 5 years	78 ± 15	83 ± 11	67 ± 16	78 ± 10
	illiterate	74 ± 15	76 ± 12	68 ± 19	65 ± 11
Income	≤ 3 MW	75 ± 15	80 ± 12	66 ± 17	67 ± 10
	> 3 MW	82 ± 9*	86 ± 9*	74 ± 1*	71 ± 9
Physical activity	Yes	76 ± 12	85 ± 11	72 ± 14	71 ± 8
	No	74 ± 17	76 ± 11*	61 ± 18*	63 ± 12*
Smoking	Yes	78 ± 11	82 ± 9	67 ± 17	58 ± 12
	No	77 ± 14	82 ± 12	69 ± 16	69 ± 10
Alcoholic consumption	Yes	83 ± 11	80 ± 10	70 ± 16	71 ± 10
	No	74 ± 14*	83 ± 12	68 ± 16	67 ± 10
Desease	Yes	76 ± 16	81 ± 12	69 ± 16	68 ± 10
	No	80 ± 11	84 ± 11	70 ± 16	68 ± 11

Dados expressos em média ± desvio padrão da média; *p<0,05; teste *t* de Student para situação conjugal, renda, atividade física, tabagismo, bebida alcoólica e doença; ANOVA para variável escolaridade.

Discussion

In this study, we purpose to evaluate the association between the domains of quality of life with the sociodemographic characteristics and habits of daily living of 60 elderly people who participate in activities of groups living in the Sinop city.

Our findings demonstrated high scores of QL domains ranging from 63 to 82 on a scale of 0 to 100 by the WHOQOL-bref questionnaire proposed by WHO. The results of the domains of quality of life were similar to those found in other studies, with elderly people from different locations in Brazil and under different conditions. Gutierrez, Auricchio and Medina (2001) measured the quality of life of 166 elderly people enrolled in activities in the areas of coexistence of two elderly reference centers of the São Paulo city and observed averages of the domains of quality of life between 60 and 70. Vitorino, Paskunlin and Vianna (2013) compared the quality of life of 288 non-institutionalized elderly people from Porto Alegre / RS with 76 elderly institutionalized from Pouso Alegre / MG and Santa Rita do Sapucaí / MG, and concluded that the perception of quality of life presented a difference significant in the psychological and social domains, with a QL score between 63 and 75. Farenzema et al. (2007) evaluated the quality of life of 81 elderly people from the Longitudinal Follow-up Program "*Veranópolis Project: Health Prevention*" and observed averages in the domains of quality of life between 68 and 73. Freitas (2011) investigated the quality of life of 131 elderly people in the Herval / RS city and obtained averages in the quality domains due between 62 and 84. Grillo et al. (2014) assessed the quality of life and nutritional status and eating habits of 99 elderly individuals belonging to a Family Health Strategy team from Itajaí / SC and observed averages of QL score between 66 and 71.

The main finding of this study was the significant influence of gender, income, physical

activity and alcohol consumption with the QL domains. Among these factors, income and physical activity were the most relevant because they showed a significant difference in three of the four QL domains. The physical activity practice presented significance in the psychological, social and environmental domains. World Health Organization (2006) considers that the physical activity profile relates to the influence of individual, economic and cultural factors, as well as the environment in which he lives and works. The practice of physical activity develops in the individual the perception of independence to perform physical tasks, elevates self-esteem and well-being, showing to be a relevant habit for the psychological and environmental domains (VIANA, 2004). Considering that in the most of the time, the elderly performed physical activity in a group, this can contribute to the interaction and social interaction, justifying the significance observed in the social domain by physical activity. Curiously and unlike expected, we did not observe association of the physical domain with physical activity. Dawalibi et al. (2014) found a similar result. This result may be due to the particularities of the WHOQOL-bref instrument, in which the questions referring to the physical domain do not reflect directly on the physical condition of the individual, but rather the individual perception about its vitality.

Our findings showed that monthly income presented significance in the physical, psychological and social domains. In Pilger's study, the influence of income on the quality of life was previously seen (Pilger, 2011); the author observed that older people with higher income had a more active aging. The authors concluded that the individuals who had higher income participated in the family budget and were financially autonomous in face of health, social and alimentary needs, reflecting positively on domains of quality of life. The concern with financial independence in old age is not just current. In Brazil, in 1923, with the prospect of inclusion of the elderly in the category of economically independent group, the first political-social action was instituted, Law Eloy Chaves, which provided for the creation of a social security system (FERNANDES; SANTOS, 2007). Essa discussão também foi levantada em nível mundial, em 1982, na Primeira Assembleia Mundial sobre o Envelhecimento em Viena, Áustria. Na ocasião, foi concebido o "*Plano Internacional sobre o Envelhecimento*", programa de ação internacional que viabilizava e garantia de modo integral a seguridade econômica e social das pessoas idosas (ONU, 1982). Mais tarde, em 1991, os direitos humanos da população idosa foram debatidos na Assembleia Geral das Nações Unidas. O encontro resultou no documento "*Princípios das Nações Unidas para as Pessoas Idosas*", formulado pela Resolução ONU 46/91 (ONU, 1992).

To provide a better financial condition can positively affect the psychological and social domains, because it ensures greater availability of goods and services, more likely to enjoy life by means of what your income offers you, besides providing a greater sense of well-being, with yourself and with those who live. All these factors invariably make the individual feel more accomplished and more "alive" (physical domain). The absence of significance in the association of income with environmental dominance may be due to the feeling of security and feeling good about the assets that it possesses, regardless of the monthly income. Contrary to our findings, Pereira et al. (2006) found no association of the income variable with any of the domains of QL in 211 elderly people. The authors associate this result to the fact that the municipality studied is small, with a predominance of agricultural activities and low cost.

The gender presented statistical significance only in the environmental domain, with a better result for the female. This relationship can be explained by the fact that the female subjects presented a higher income than male and, since the environmental domain has a close relationship with the frequented environments, the leisure, transportation and health services options, individuals with higher incomes tend to have access to a wider range of activities, goods, and services.

The consumption of alcoholic beverage presented significance only in the physical domain, with a better indicator of QL for the elderly that use alcohol. This result is unexpected, but the questioning regarding the physical domain reflects the self-perception about the vitality of the individual being and the alcohol intake can interfere in the individual's self-assessment of their vitality (physical domain). Of the elderly who reported drinking alcohol (18), 14 do it less than three times a week, only on weekends or during recreation activities in social groups.

There was no significant relationship between the disease characteristic and the quality of life domains. Possibly, this result is due to the characteristics of the diseases presented. Such diseases do not usually generate significant disability and interference outcomes in people's daily lives and therefore do not reflect in the domains of quality of life.

Confirming the hypothesis of the study, our data showed that sociodemographic factors and daily living habits directly influence the quality of life of elderly people living in cohabitation clubs. Although the present study did not provide a comparison with elderly individuals who did not participate in cohabitation groups, the results indicate that community interaction provides a good quality of life for the elderly population. Although the sample size of this study represents about 20% of the total number of elderly people living in the cohabitation groups in the city of Sinop / MT, it should be emphasized that the elderly evaluated may not represent this population faithfully, because

there was no calculation of the sample size and neither draw.

The results of this study confirm the information in the literature about the impacts that the socioeconomic condition and habits, as physical exercise practice, have on the quality of life of the population, and more specifically, the population over 60 years of age. A manutenção de hábitos saudáveis possui associação direta com uma vida mais ativa e com melhor qualidade de vida (NUNES et al. 2010). Thus, the creation of public policies that promote the active aging and maintenance of the social role of the elderly, the provision of free and quality health services are important and urgent strategies to equate the distortions presented by the socioeconomic condition over quality of live in elderly population.

Conclusion

This study conclude that the maintenance of healthy habits, as well as the favorable socioeconomic condition, positively influences the domains of quality of life of the elderly participants in social groups.

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