THEMATIC ISSUE: HEALTH OF THE ELDERLY

# Aging and quality of life of elderly people in rural areas

Envelhecimento e qualidade de vida de idosos residentes da zona rural Envejecimiento y calidad de vida de los ancianos residentes de la zona rural

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# ABSTRACT

**Objective:** To evaluate the quality of life and health of elderly in rural areas of Minas Gerais State's center-west. **Method:** Cross-sectional study, in four municipalities of Minas Gerais State, by interviewing elderly people. Associations between socio-demographic and quality of life variables were tested, separated into "satisfactory"/"unsatisfactory" with values from the median of positive answers. It was used the chi-square test, Fisher's test and regression. **Results:** 182 elderly answered the questions and showed a relation with the "satisfactory" quality of life — bivariate (p < 0.05): age by 69 years (61.6%), married (61.7%), living by 54 years in rural areas (68%), with no financial support (59.5%), living with someone else (61%), non-smoker (60%), presenting good health (76.7%), satisfied with life (69.6%); regression: not having financial support, living with someone else and not smoking. **Conclusion:** Elderly people in rural areas present good quality of life/health in the cognitive aspect, access to services, goods, habits, but awareness must be constant due to their weakness. **Descriptors:** Elderly: Quality of Life; Integral Attention to Health; Rural Areas; Rural Population.

# RESUMO

**Objetivo:** Avaliar a qualidade de vida e a saúde dos idosos residentes nas zonas rurais do centro oeste de Minas Gerais. **Método:** Estudo transversal, em quatro municípios mineiros, por entrevista com idosos. Testaram-se associações entre variáveis sociodemográficas e qualidade de vida, dicotomizada em "satisfatória"/"*não satisfatória*" com valor obtido a partir da mediana de respostas positivas nas questões. Utilizaram-se o teste qui-quadrado, Fisher e regressão. **Resultados:** Responderam 182 idosos e apresentaram relação com qualidade de vida "*satisfatória*" — bivariada (p < 0,05): idade até 69 anos (61,6%), casados (61,7%), residindo por até 54 anos no meio rural (68%), sem receber ajuda financeira (59,5%), vivendo acompanhado (61%), não fumante (60%), referindo boa saúde (76,7%), satisfeito com a vida (69,6%); regressão: não receber ajuda financeira, morar acompanhando e não fumar. **Conclusão:** Idosos da zona rural apresentaram boa qualidade de vida/saúde nos aspectos cognitivos, acesso a serviços, bens, hábitos, mas a atenção deve ser contínua tendo em vista suas vulnerabilidades. **Descritores:** Idoso; Qualidade de Vida; Assistência Integral à Saúde; Zona Rural; População Rural.

# RESUMEN

**Objetivo:** Evaluar la calidad de vida y la salud de los ancianos residentes en las zonas rurales del centro oeste de Minas Gerais. **Método:** Estudio transversal, en cuatro municipios mineros, por entrevista con ancianos. Se probaron asociaciones entre variables sociodemográficas y calidad de vida, dicotomizada en "satisfactoria"/"no satisfactoria" con valor obtenido a partir de la mediana de respuestas positivas en las cuestiones. Se utilizó la prueba Chi-cuadrado, Fisher y regresión. **Resultados:** Respondieron a 182 ancianos y presentaron relación con calidad de vida "satisfactoria" — bivariada (p < 0,05): edad hasta 69 años (61,6%), casados (61,7%), residiendo por hasta 54 años en el medio rural (68%), sin recibir ayuda financiera (59,5%), viviendo acompañado (61%), no fumador (60%), refiriendo buena salud (76,7%), satisfecho con la vida (69,6%); regresión: no recibir ayuda financiera, vivir acompañando y no fumar. **Conclusión:** Los ancianos de la zona rural presentaron buena calidad de vida/salud en los aspectos cognitivos, acceso a servicios, bienes, hábitos, pero la atención debe ser continua teniendo en cuenta sus vulnerabilidades. **Descriptores:** Ancianos; Calidad de vida; Asistencia Integral a la Salud; Zona rural; Población Rural.

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# INTRODUCTION

The process of demographic transition presents with changes in the structure of the population due to the increase in the number of elderly people. It is estimated that, in 2050, Brazil will have the sixth population of older people in the world; and, in the country, the elderly will correspond to 16%<sup>(1-2)</sup>. Aging is considered as a process that undergoes intrinsic and extrinsic influences represented by individual aspects, like: life trajectory, collective life, access to education, health and general care<sup>(3)</sup>. Old age is known as heterogeneous. There are people who grow older with good quality of life and health, with few pathologies, satisfactory self-care, good levels of stress control and life satisfaction. In contrast, there are others that experience inactivity, fatigue, sarcopenia, anorexia, comorbidities and depressive symptoms, which affect the quality of life in old age.

For the World Health Organization (WHO), quality of life is "the individual's perception of their insertion 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 WHO defines health not only as the absence of disease, but as the condition of perfect physical, mental and social well-being of the individual<sup>(4)</sup>.

The type of life adopted by the old individual directly affects his/her aging process, as well as the socioeconomic and biological risks throughout life are determinant in the process of aging. However, certain external factors influencing access to health services, health and quality of life have a different impact on people in rural areas and urban areas. Among them, access to transportation, geographical distances for the acquisition of goods and services (commerce, health services, schools) and the time required for commuting<sup>(5)</sup>.

However, old age in the Brazilian rural context is a subject insufficiently studied, a priori removed from the eyes of researchers and society for being considered a particular reality, of little importance, given that the rural elderly population in Brazil was estimated at 15.7 % against 84.3% of the urban area<sup>(6-7)</sup>. As a result of the lack of visibility, the scenario of the elderly life in the countryside permeates by common sense, social imaginary, distorted view of reality and prevalence of stigmatized conceptions. In relation to health and health care assistance for elderly rural residents, it is estimated that it is difficult for characteristics related to access (insufficient transportation, poor road conditions or absences, location far from health services), income and the very habit of the elderly in seeking curative/therapeutic rather than preventive care. As a consequence, there may be worsening of the health conditions and quality of life of these elderly people<sup>(5,8-9)</sup>. Thus, we ask ourselves: What is the life of the elderly living in the countryside? What are the characteristics in the scenario that imply satisfactory or unsatisfactory quality of life and health?

This study was justified by the intention of assessing whether the elderly population residing in the rural area of the center-west of Minas Gerais State has fundamental and inherent rights to the human person, without affecting the integral protection; in addition, rights protected by the State, society and family, assured of participation in the community, with dignity and well-being, principles that are directly connected with the factors presented in this research on the quality of life and health of the elderly in rural areas<sup>(10)</sup>. Knowing them will bring subsidies to better assist them. It is inferred from other studies on the subject that the elderly living in rural areas live with variable situations between poverty and absence, with geographic isolation, low levels of schooling, poor housing conditions, greater difficulties of access to health services, social resources, and transportation, when compared to the elderly living in urban areas<sup>(11)</sup>.

## **OBJECTIVE**

To evaluate the quality of life and health of the elderly living in rural areas.

#### **METHOD**

#### **Ethical aspects**

The research was approved by the Ethics Committee of the Pontifícia Universidade Católica de Minas Gerais. Data collection began with presentation of the study and signing of the Free and Clarified Consent Term (FCCT); in the case of the illiterate, consent was made by a relative.

#### Study design, place and period

This was a cross-sectional survey carried out in the municipalities of Arcos, Piumhi, Pimenta and Japaraíba, located in the center-west of Minas Gerais State, from February to December 2014.

#### Population and sample: inclusion and exclusion criteria

The general population and the elderly respectively were: Arcos 36,597/4,286, Piumhi 31,883/4,292, Pimenta 8,236/975 and Japaraíba 3,939/365(12-13). Center-west of Minas Gerais State had 1.12 million inhabitants (5.7% of the total state), 11.3% lived in the rural area, with income generation concentrated in the services sector (60.4%), with emphasis on the industrial sector (25.1%) and agriculture (14.5%)<sup>(14)</sup>. The municipalities listed in the survey have socioeconomic impacts in the region. The participants in this study were elderly with a minimum age of 60 years, cognitively able to answer the questions, being approached in their rural residences or in the Basic Health Units (during visits to the city). In the municipalities, an investigation was carried out with the health agencies and the registers of the Basic Health Units to obtain the location of the rural residences inhabited by the elderly. In the registries, 345 elderly individuals were found, and the calculation - considering p = 0.05 and 95% confidence interval - resulted in a sample of 182. They were randomly chosen from the aforementioned records.

# Study protocol

For the interviews, a questionnaire was used, containing 10 parts and 113 questions, based on the SABE project (health, well-being and aging) instrument and a study conducted in

Rio Grande do Sul State<sup>(15-16)</sup>. The interviews took place from Monday to Friday from 9:00 am to 6:00 pm, preferably in a silent and uninterrupted environment. The questions were addressed to the respondent orally, in person, and an interview notebook was provided to follow the inter-

viewer's reading of the questions (three, properly trained), and the answers were marked only in the interviewer's questionnaire.

## Analysis of results and statistics

The results were analyzed descriptively and statistically using the program Statistical Package for the Social Sciences/13.0. The associations between the socio-demographic variables and the quality of life were tested, being separated into "satisfactory" or "unsatisfactory" with value from the median of answers in the questions by the participants. The chi-square test, Fisher's test was used to validate the association (p < 0.05) in the bivariate analysis. The variables that presented p-value less than 0.2 went to the adjustment stage of the final model in multivariate analysis.

Quality of life was separated into "satisfactory" or "unsatisfactory" with value from the median of positive answers/correct answers to the questions considered in the questions. Thirty questions were chosen to define quality of life, as follows: Results of Mini Mental State Examination; access to piped water; Sewer; toilets; electricity; waste disposal/collection; access to the media; transportation; live with someone else; feel good in the residence; health evaluation; health assessment; health evaluation; use of medications; practice of physical activities; habit of smoking; full daily meals; listen to problems; view; speaks; chew; difficulty in swallowing; frequency of choking; amount of teeth in the oral cavity; falls in the last year; use of assistive technology for commuting; access to health services; waiting time to schedule appointments; presence of caregiver in sickness; receive care when sick.

# RESULTS

200 elderly people living in rural areas were invited to participate: 14 refused and 182 answered the questions. These, with average age of 69 years (60-95 years); 92 (50.5%) were female; 128 (70.3%) reported being married and 160 (87.9%) retired. As to the profession, 94 (51.6%) of the elderly mentioned agriculture as a profession, being ploughmen or ranchers; 47 (25.8%) were home-based workers; and 100 (54.9%) stated that they did not perform any work at that time. As for education level of the elderly has predominated incomplete Basic Education (100/54.9%), with ability of reading, writing (135/74.2%). About the dwelling, 175 (96.2%) claimed to own their own home, of which 176 (96.7%) had masonry residences and 180 (98.9%) had piped water inside the home. Other socio-demographic data are shown in Table 1.

Table 1 –	Profile of the elderly ( $N = 182$ ) of the rural area and hous-
	ing, Municipalities of Arcos, Japaraíba, Piumhi and Pimenta,
	center-west of Minas Gerais State, Brazil, 2014

Variables	Categories	n (182)	%
Age (average in years)	≤ 69 > 69	112 70	61.5 38.5
Age (by bracket)	60-69 70-79	112 56	61.5 30.7
	80-89	14	7.7
Gender	Female	92	50.5
	Male	90	49.5
Skin Color	White	127	69.8
	Black	33	18.
	Brown	21	11.
	Yellow	1	0.5
Marital Status	Married	128	70.
	Widow(er) Single	35 13	19.1 7.1
	Divorced/separated	6	3.3
Living in rural areas (average in years)	≤ 54	78	42.9
Erving in rular areas (average in years)	> 54	104	57.
Place of birth	Rural	103	56.
	Urban	79	43.4
Knowing how to read/write	Yes	135	74.
	No	13	7.1
Education	Writes their name	34	18.
	Incomplete Basic Education	104	57.
	Complete Basic Education	20	10.9
	Complete Secondary Level Education	11	6.0
	Illiterate (writes their name)	47	25.
Being retired	Yes	160	87.
C	No	22	12.
Profession	Ploughmen/farmer	65	35.
	Home-based/domestic	47	25.8
	Rancher	29	15.9
	Autonomous/dealer	10	5.4
	Seamstress	6 4	3.3
	Equipment Operator Others	4 21	2.2 11.!
		100	- 4
Laboring (interview day)	No Yes	100 82	54.9 45.
	165	02	45.
Having financial support	No	163	89.
	Yes	19	10.
Living alone	No	159	87.
	Yes	23	12.
Residence ownership	Elderly's	175	96.
	Third party's	7	3.8
Type of residencial construction	Masonry	176	96.
	Mixed Wood	5	2.7
	wood	1	0.5

In relation to the means of communication and transportation, most of the elderly mentioned access to them, distributed in: telephone - 164 elderly (90%); car - 137 (75.3%), bus - 103 (56.6%); cycling - 14 (7.7%), use of horses - 4 (2.2%) and walking - 52 (28.6%). They were variables that allowed to indicate

In the evaluation of self-perception of health, 90 (49.5%) defined it as good; and 2 (1.1%), as bad. Regarding the consultation with a health professional, 92 (50.5%) stated that they used the Basic Health Unit; and 68 (37.4%), the private practice (Table 2).

more than one category, so n is above 182.

In the occurrence of diseases or sicknesses, 112 (61.5%) of the elderly mentioned that the care is carried out by females and 95 (52.2%) said that the caregiver is older than or equal to 60 years. Regarding who the caregiver is, 98 (53.8%) answered that the person is the wife/ husband or partner; and 43 (23.6%), who is the child. As for satisfaction with one's life and enjoy living in the present life, 134 (73.6%) and 136 (74.7%) agreed totally, respectively. The majority reported not being smokers (150/82.4%) and not having any falls (136/74.7%) in the last year. Further data on health are found in Table 2.

The absence of health consultations was justified by 39 (21.4%) of participants, as a consequence of long distance and/or lack of transportation (15/8.2%), lack of time (10/5.5 %), absence of an accompanying person (9/4.9%), poor attendance (3/1.6) and lack of money to pay for the consultation or the displacement (2/1.1%). The variable-response "quality of life" was separated into "unsatisfactory guality of life" and "satisfactory quality of life" from the median results (78.8%), so that the sample was stratified into two size groups approximations and, consequently, for crosses to express such variables in the sample. Table 3 presents the results of the bivariate analysis between the socio-demographic variables and the separated variable-response, especially those with association (p < 0.05).

Younger elders ( $\leq$  69 years old/61.6%), who lived less in the rural area ( $\leq$  54 years/68%), were born in the urban area (69.6%) and are married (61.7%) presented satisfactory quality of life. Older people who reported not being able to read/write (76.9%), who received some financial aid (78.9%), with poor memory (75.0%), dissatisfied with life (77.8%), with a very good memory (69.0%), who live alone (82.6%), who defined their own health as poor (90.9%), smokers (65.6%) and did not receive care when get sick (72.7%) had an unsatisfactory quality of life (Table 3). In the adjusted analysis (table/number), not receiving financial support, living with a partner and not smoking was associated with a satisfactory quality of life, as opposed to the place of birth and birth in the rural area (Table 4).

Table 2 –Perceptions of the elderly (N = 182) living in the rural area related<br/>to their own health, life and other variables related to health care,<br/>center-west of Minas Gerais State, Brazil, 2014

Variables	n (182)	%
Self-perception of health		
Great	32	17.0
Good	90	49.
Regular	47	25.8
Bad/Very bad	13	7.1
Consultations with health professionals (last year)		
Basic Health Unit	92	50.
Private Practice	68	37.
Hospital emergency department /SUS*	6	3.3
Hospital emergency department/ private	4	2.2
Drugstore assistance	3	1.6
Did not look for assistance, even if needed	1	0.5
Obtaining care when gets sick		
Yes	161	88.
No	21	11.
Characteristics: caregiver in the face of disease/sickness ( $n = 161$	)	
> 60 years	95	52.
< 60 years	66	36.
Female	112	61.
Male	49	26.
Husband or partner	98	53.
Son/daughter	43	23.
Another family member	15	8.2
Friend/neighbor	5	2.7
Satisfaction with life	124	70
I totally agree	134	73.
Lagree, in general	23 16	12.
l agree a little I disagree a little	9	8.8 4.9
-	5	т.
Liking to live the current life	120	74
I totally agree	136 27	74. 14.
l agree, in general I agree a little	13	7.1
I disagree a little	4	2.2
I disagree, in general	2	1.1
	-	
Memory evaluation Excellent	31	17.
Very good	42	23.
Good	53	29.
Regular	44	24.
Very bad	12	6.4
Smoker		
Yes	32	17.
No	150	82.
Falls (last year)		
None	136	74.
One	36	19.
	50	

Note: \*Unified HealHealth System

Table 3 –Unadjusted analysis of potential associated factors (socio-<br/>demographic and health variables) to the Quality of Life of<br/>the elderly in rural areas, center-west of Minas Gerais State,<br/>Brazil, 2014

	Quality of Life		
Variables	Unsatisfactory n (%)	Satisfactory n (%)	р value*
Age (average/years)			0.036
≤ 69	43(38.4)	69(61.6)	
> 69	38(54.3)	32(45.7)	
Marital Status			0.001
Single	7(53.8)	6(46.1)	
Married	49(38.3)	79(61.7)	
Divorced/Separated	06(100)	-	
Widow	19(54.3)	16(45.2)	
Average (years) living in rural areas			0.003
≤ 54	25(32.0)	53(68.0)	
> 54	56(53.8)	48(46.2)	
Place of birth			0.001
Urban	24(30.4)	55(69.6)	
Rural	57(55.3)	46(44.7)	
Knowing how to write/read			0.051
Yes	57(42.2)	78(57.8)	
No	10(76.9)	3(23.1)	
Writing the name	14(41.2)	20(58.8)	
Having financial support			0.001
Yes	15(78.9)	4(21.0)	
No	66(40.5)	97(59.5)	
Living alone			0.001
Yes	19(82.6)	04(17.4)	
No	62(39.0)	97(61.0)	
Own health			0.001
Great	13(40.6)	19(59.4)	
Good	21(23.3)	69(76.7)	
Regular	36(76.6)	11(23.4)	
Bad	10(90.9)	01(9.1)	
Very bad	01(50.0)	01(50.0)	
Receiving health care when sick			0.005
Yes	65(40.6)	95(59.4)	
No	16(72.7)	06(27.3)	
Satisfaction with life			0.006
I totally agree	55(41.0)	79(59.0)	
l agree, in general	07(30.4)	16(69.6)	
l agree a little	12(75.0)	04(25.0) 02(22.2)	
I disagree a little	07(77.8)	02(22.2)	
Memory evaluation		4.6.1=4.65	0.003
Excellent	15(48.4)	16(51.6)	
Very good Good	13(30.9) 17(32.1)	29(69.0) 36(67.9)	
Regular	27(61.4)	36(67.9) 17(38.6)	
Very bad	09(75.0)	03(25.0)	
	00(, 0.0)	00(20:0)	0.000
Smoker Yes	21(65.6)	11(34.4)	0.008
No	60(40.0)	90(60.0)	
	00(10.0)	30(00.0)	

Note: \*Person's chi-square.

Table 4 – Poisson multivariate regression model, adjusted for factors associated with satisfactory quality of life among elderly (N = 182) residents of the rural area, center-west of Minas Gerais State, Brazil, 2014

Variables	OR (CI95%)	p value
Place of birth Urban	_	0
Rural	0.6 (0.5-0.8)	
Having financial support Yes No	- 2.5(1.0-5.9)	0.043
Living alone Yes	-	0.013
No Smoking	3.1(1.3-7.8)	0.006
Yes	-	0.000
No	1.8(1.2-2.9)	

Note: PR = prevalence ratio

## DISCUSSION

An area is considered to be urban when it is the seat of a municipality or district, and therefore there is only a political-administrative division of a space defined by municipal councils<sup>(17)</sup>. Brazil had a rural population profile; however, with industrialization, the migratory process occurred, and households settled more in the cities. The rural area has ceased to be the focus of attention and has entered a process of exclusion, poverty, little modernization and political abandonment. The population of these areas, then, faced difficulties, which affected well-being, health and altered the socioeconomic profile<sup>(7,18)</sup>.

In relation to the socio-demographic profile, in this study, there was a predominance of elderly women who were married, but with a slight difference between the genders, corroborating other studies, also in rural areas, with 53.8% of female participants<sup>(19-20)</sup>. The higher life expectancy among women is known to be justified by less exposure to risk factors and by adherence to health care, as well as to health services, preventive and therapeutic programs<sup>(21-22)</sup>. In addition, male-ruralurban migration, which occurs in the productive phase of young adults is one of the reasons for this movement, which is rooted in socioeconomic and cultural dynamics, influencing the greater number of elderly women<sup>(23)</sup>. The Brazilian Institute of Geography and Statistics (IBGE), however, pointed out a higher number of men in rural areas with a sex ratio of 107 men for every 100 women, while in urban areas it was 75 men<sup>(18)</sup>. One explanation is that women migrate to urban homes with children, grandchildren, other relatives, and that men continue to engage in fieldwork<sup>(7)</sup>.

Among the elderly, 54.9% have incomplete Basic Education, and 74.2% of the total can read and write. In this sense, the elderly population, especially the rural population, was excluded from formal education; hence, a direct relationship between old age and being illiterate is observed, reaffirming the leaders' disregard for public education<sup>(24)</sup>. In relation to the profession, a profile of domestic and field-related work (agriculture, livestock) is proposed, under the condition of retirement and own residence, with a higher proportion compared with the literature (retirement/50.6%; own/70.4%)<sup>(25)</sup>. An important characteristic is that in Brazil, the elderly population that receives some benefit from social security or social assistance is one of the most significant in Latin America. According to the Synthesis of Social Indicators and Social Security, an average of 83.6% (between 76.3% and 84.2%) were contemplated with some benefit from social security. From the age of 65 the figure rises to 94.8%<sup>(6,17)</sup>, making Brazil one of the countries with the highest level of social protection for the elderly. However, this condition does not exempt the elderly from work activity<sup>(17)</sup>. In this study, 45.1% of the respondents said they still had work, which confirms another study, since the values of retirement do not meet the demands of the elderly, although they contribute to the financial dependence of others, such as children. It also points to the relation of work as a way of denying old age, of maintaining independence, of maintaining autonomy as a social actor, beyond the mere necessity of sustenance or of having a remuneration<sup>(7)</sup>.

Regarding health care, the elderly participants in this study reported having it mostly through the BHU, a result pointed out by another research, demonstrating primary care as the main doorway of the elderly in the health network<sup>(26)</sup>. Since 1994, the public policies aimed at the elderly have developed with the implementation of the Family Health Program (FHP), which have gained strength since the Elderly Statute (Estatuto do Idoso) was introduced in 2003, later evolving into the National Programme for Health Care of the Elderly (2006). The latter presents two main complementary and non-exclusive axes: coping with the frailties of the SUS, the families and the elderly; and the promotion of active aging following the 2002 WHO proposal. There is a need: to put these care policies into effect with the elderly population, regardless of where they reside; and support for families with the elderly and the training of professionals<sup>(27)</sup>. It is also assumed that differences in infrastructure between the rural and urban areas, as well as the characteristics of the population may affect the health and QoL of the elderly, when their specific characteristics are not met, being necessary to promote investigations that cover the peculiarities of these different spaces<sup>(28)</sup>.

In this research, only 8.2% of the elderly answered that distance and lack of transportation is one of the reasons for not having necessary consultations, unlike another study that pointed out the access and accessibility of the elderly to the BHU, the transportation shortage for commuting, and distance

from rural localities to the BHU, as main intervening factors<sup>(29)</sup>. Thus, there is a disparity between access to fundamental rights and basic needs, revealing the great distance between urban and rural Brazil<sup>(28)</sup>.

Most of the elderly determined women, elderly and spouses/partner as the primary caregivers in cases of sickness. It is a characteristic that refers to the attribution made to women, since many times, to a cultural and social role as the great caregiver of the home and the sick. It is observed that people who are also experiencing aging are assuming the care function, evidenced by the fact that the spouse is the main caregiver of the elderly<sup>(30)</sup>.

In this study, only 1.1% of the elderly considered their own health as bad. The majority considered it as good, corroborating other studies<sup>(21,25)</sup>. Self-perception of health is considered to be indicative of the individual's own biopsychosocial assessment and quality of life, and must be identified by health professionals in order to develop measures to improve the individual's health status<sup>(25-26,29)</sup>. Most of the elderly showed satisfaction with life and living, thus highlighting personal satisfaction. The variable of self-perception of health and satisfaction with life may suffer negative or positive influences from the socioeconomic level, health/sickness process, arrangement and family life. The family can be considered a great ally in the constitution of a healthy aging<sup>(25)</sup>.

In a study carried out in the rural coffee-growing region of Colombia, 47% of the elderly reported feeling healthy; of the total, 12% reported their health as very poor, a percentage in which the elderly are aged 80 years or more, from which the relation between the approach of the end of life and worse selfperception of health is inferred. Of the elderly living alone in rural communities, 67.0% perceived themselves to be in good health and 27.8% in poor health. The elderly and males were more numerous among those who reported poor health<sup>(26)</sup>. For the elderly, determining quality of life influences the selfperception of health that consists of feeling good, regardless of the diseases and diseases which may be factors that make it impossible to perform some activities and/or fractionate their abilities. Awareness of the subjective judgment of the patient regarding their physical functioning is increased, and health is included in this overall assessment of status from its aspects<sup>(31)</sup>.

Elderly people with very good quality of life and health have the following characteristics: few diseases, good level of self-care, physical and mental functionality preserved, adherence to physical activities, social participation and high level of satisfaction with life. On the other hand, those who experience the opposite evidences: inactivities, cognitive decline, depressive symptoms and comorbidities, which characterize poor quality of life<sup>(32)</sup>. But it is not always what you observe. It is possible to find them satisfied despite possible sicknesses and limitations. In this sense, it is necessary to discuss aspects of the resilience and resignation of these people. Throughout life, it is assumed that resilience tends to increase functioning as the propeller of adaptations in successful old age. The literature on resilience in old age relates the importance of elements of "being" (self-concept, self-esteem, and emotional regulation) and the resources of the environment (social, family

and community support) with internal strength, life goals, and self-questions and adversities of life, so that the difficulties of the field can be overcome<sup>(33)</sup>. On the contrary, resignation is characterized by a conformism in which, even if there are bad conditions of life and health, the person points them as good once he accepts them voluntarily and peacefully. Conformity may be, in the elderly scenario, the acceptance of the lack of commitment of government officials and the lack of effective public policies for the elderly in the country<sup>(34)</sup>.

The quality of life in old age is an important concept today in Brazil, insofar as there is a new social sensitivity to old age, considered both as a problem and as a challenge for individuals and for society<sup>(35)</sup>. The elderly participants of this research presented with satisfactory quality of life, with shorter residence time in rural areas, born in the urban area and married. With the process of senescence, there are losses and limitations in the functioning of the body; the state of aging well comes from the ability to select the remaining functions and reserve capacities to compensate for what was lost in the aging process<sup>(36)</sup>. In this study, the elderly who excelled for good quality of life were those who were born in the rural area, who did not need financial help, who lived with other people and did not smoke. As smoking is an accelerator of aging, both directly through the mediation of free radicals and correlated pathological conditions, it becomes a commitment not only to the expectation but also to the quality of life. In addition, a study conducted in Sweden with the elderly over 85 years showed that good quality of life was associated with a good economic situation(37-38).

Unsatisfactory quality of life was shown in those elderly people who stated that they cannot read/write, that they received some financial help, no life satisfaction, living alone, smokers with poor health perception and no help at the moment of sickness. A large proportion of depressed geriatric patients have cognitive declines - it is considered a decline because they differ from cognitive dysfunction and dementia<sup>(39)</sup>. Older people often become more vulnerable to alcohol and tobacco use, and this may gradually lead to a major population problem, as the number of older people in the world is increasing. They are part of a class that presents various health problems; in response to these and as an aggravating factor, use many drugs, which, combined with the harmful substances present in tobacco and alcohol, make them more susceptible to interactions, worsening of the condition, difficulty of recovery and social interaction<sup>(40)</sup>.

Brazil still has a population with a larger workforce than the dependent population, but projections point to such an outlook until the middle of 2020. Thus, the country is in the moment of choices that imply investments focused on senescent and aging, in all the context, as described in one of the principles of the National Programme of the Elderly, which says that the economic, social, regional differences and contradictions between rural and urban Brazil should be observed by public authorities and society<sup>(7,27)</sup>.

#### Limitations of the study

The limitations of this study were found in the difficulty of including other municipalities, of performing the direct observation of the elderly to prove some data collected and the absence of clinical research with the application of physical and serological tests. It is hoped that other studies may fill this gap in the knowledge about the elderly living in rural areas, especially in the center-west of Minas Gerais State; and that the present study is useful for comparisons with future data.

#### Contributions to the area of nursing and public health

Evaluation of the quality of life of elderly residents in the rural area allows nursing to use all its practice as a health profession anchored in the precepts of care, education, epidemiology and public health, discussing and defining actions that may contribute to the dignified aging, right determined by the Brazilian constitution.

Understanding the quality of life of the elderly helps the nursing professional to understand the processes of development of religion, culture and the principles/values present in the family and social environment of the elderly.

#### **CONCLUSION**

Elderly people in rural area participating in this study had a satisfactory quality of life, identified by reports indicating satisfaction with life, low access to health care, financial independence, home ownership, not living alone and caregiver support in cases of sickness. As in any population, there is a portion of these elderly people that needs more attention from the health services due to comorbidities, dependencies, and family support deficits. It is inferred that, in the near future, certain conditions and lifestyles proper to rural areas will be altered by the evolution of housing systems, the needs of modern life and technological expansion.

Knowing the factors that influence aging, health and how these present themselves in daily life collaborates directly in the understanding of the quality of life of elderly people in rural areas. This knowledge guides the proposal of public and social actions of various spheres and services that they share to minimize the risks and fragilities of the elderly.

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