

# Association between Income and Self-Perception of Health with Life Satisfaction of life of seniors in Corresidence

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**Abstract**— Due to the aging process, new family arrangements have emerged, one of which is that of co-residence, which may be related to several factors for the elderly, such as their health and financial conditions. Thus, the aim of this study is to analyze the relationship between income, self-perception of health and life satisfaction in elderly co-residents. The study design will be cross-sectional, population-based and quantitative approach. The study participants were 239 elderly in co-residence situation. For data collection, we used the adapted Brazil old age Schedule questionnaire and the Health Status questionnaire. The analysis used Pearson's chi-square test, with significance set at 5%. The results of the crossover of data between self-perceived health and life satisfaction of the sample,, revealed that positive cases of self-rated health are correlated with higher frequencies of life satisfaction ( $p = 0.02$ ). From the study, it was concluded that the elderly living in co-residence are satisfied with the family arrangement in which they live, thus directly influencing their own perception of their health.

**Keyword**— Self image. Old man. Relationship between generations. Income. Personal satisfaction.

## I. INTRODUCTION

Population aging has been growing progressive and steadily all over the world, a fact that initially occurred in developed countries and more recently gained great space in developing countries [1]. According to the Brazilian Institute of Geography and Statistics - IBGE (2019), the Brazilian population is made up of 209,635,403 million people, and the number of elderly people ( $\geq 60$  years old) has been gradually increasing over the years. In 2012, the population aged 60 and over was 25.4 million, while in 2017 it was 30.2 million, otherwise there was an 18% growth in this age group in this short period of time. Of this total, women represent 16.9 million (56% of the elderly), while men are 13.3 million (44% of the elderly) (IBGE, 2018).

This constant growth of the elderly population can be mainly explained by the reduction in fertility, the increase in the number of families that chose not to have children, and also by the improvement of life expectancy and quality of life. As a result of the aging process, changes occur in perceptible aspects of the organism in relation to the physical, psychological and emotional, as well as changes in social, economic and cultural factors, such as the organization of families, since they are also aging, having the presence of at least one elderly person within the family, resulting in various forms of family arrangements, one of which is that of co-residence, which refers to the cohabitation between elderly with children and / or grandchildren in the same home space [2].

The family is seen as a supportive host, being the main source of care, support and protection [3]. Thus, co-residence between the elderly and their families may be related to several factors for the elderly, such as health and financial conditions, in which they receive the necessary care that may be offered by their families. For younger people, co-residence may be the result of difficulties in entering the labor market, which may lead to dependence on the income of the elderly [4].

In this context, intergenerational living can bring with it several benefits of improving the living conditions of the elderly and their families, as it represents a means of sharing care, affection, assistance, protection, besides allowing the division of expenses, playing a role important in income variations of parents and children, bringing greater savings and reduced spending [5]. However, this conviviality may not be beneficial when it presents conflicts, due to divergences of ideas and worldviews because they are individuals from different times. Moreover, it may also occur that co-residence does not guarantee the necessary support in times of difficulties for the elderly, thus becoming an unwanted family arrangement [6].

It is important to highlight that the World Health Organization (WHO) (2005) [7] emphasizes the importance of intergenerational coexistence for the health and well-being of the elderly, because, at this stage, these individuals present many pathologies associated with physiological changes that the process of senescence teases naturally. Being close to their family members, the elderly have more careful care with their health and greater care, which directly interferes with their satisfaction and quality of life.

Understanding the importance of how the elderly are inserted in the family arrangement of co-residence and how this interaction and its characteristics may or may not impact their health is fundamental. This will facilitate the improvement of care for this public, as well as the elaboration of public policies and actions for health promotion and prevention by professionals in the area, in order to reach this whole population within this family dynamics. Nevertheless, it will enable a greater knowledge on the subject, favoring the improvement of the quality of life and conditions of the elderly. Thus, this study aims to analyze the association between income, self-perception of health and satisfaction in elderly co-residents.

## II. MATERIALS AND METHODS

The study design is a cross-sectional, population-based and quantitative approach. This is a subproject of the project entitled "Family Arrangement of Elderly Residents

in Northeast and Southeast Municipalities of Brazil", which was developed in two Family Health Units (FHU) in the city of Vitória da Conquista - BA, which were selected through a simple draw.

We included in the study population all the elderly in co-residence registered in the USF, totaling 239 elderly. As a selection criterion, individuals aged 60 years or older living in the urban area of Vitória da Conquista - BA, in a state of co-residence, participated in the research, and presented cognitive conditions that allowed answering the questions according to the application of the study. Mini Mental State Examination (MMSE). And those who refused to participate and those who after three attempts on alternate days and times were not found at home were excluded.

The MMSE consists of 11 items, which require verbal answers to questions of temporal and spatial orientation, attention, reading, memory, calculation, naming, verbal commands and copying a drawing (polygons). To evaluate the results obtained through MMSE, the following cutoff points will be adopted: 19 points for illiterate elderly; 23 points for seniors with 1 to 3 years of schooling; 24 points for seniors with 4 to 7 years of schooling and 28 points for seniors with schooling above 7 years (BRASIL, 2007). Scores below these scores indicate a risk of *deficit* cognitive.

The collection of the main project took place in two stages. In the first moment, the number of elderly registered in the USF was identified through the consultation of the family registration forms, called Form A, and a survey of the elderly who live alone and those who correspond with family members.

Then, the following instruments were applied to the selected elderly: the interview, through a semi-structured questionnaire containing participants' identification data, such as age, gender and family arrangement composition, the *Brazil Old Age Schedule* (BOAS) questionnaire adapted to evaluate the financial income and life satisfaction of the elderly, and the Health Status questionnaire.

The *Brazil Old Age Schedule* Questionnaire - BOAS is a research tool that investigates multidimensional factors of aging, based on other instruments with acceptable standards of validity and reliability. The BOAS was conceived from 8 major categories (general information, physical health, use of medical and dental services, activities of daily living, social resources, economic resources, mental health, needs and problems that affect the interviewee) [8]. The Health Status questionnaire was prepared by the study itself, containing information related to the health status of individuals. The empirically

collected data were tabulated and received descriptive (frequency, mean and dispersion measurement) and analytical treatment (Pearson's chi-square test, with significance set at 5%) with the aid of the SPSS software. The tables were plotted by Microsoft Excel software.

The main study of which this research is part was approved by the Research Ethics Committee of the State University of Southwest Bahia (CEP-UESB), whose opinion n° 102.641, was issued observing the Resolution of the National Health Council (CNS) 196 / 96, in force at the time. Therefore, a request was made to CEP-UESB to include this study in the main project in accordance with Resolution No. 466 of December 12, 2012.

The data production was performed after the assent of CEP-UESB of the inclusion of this field of study, and the authorization of the SMS of Vitória da Conquista - BA for conducting the research in the USF. The participation of the elderly was voluntary, and the acceptance was formalized by signing the Informed Consent Form (FICF), signed in two copies, one of the informant's domain and the other of the researcher's guardian responsible for the study.

It is also noteworthy that this study is linked to the Center for Research and Studies in Health of the Elderly of the Independent College of the Northeast - FAINOR.

### III. RESULTS AND DISCUSSION

The sample of 239 elderly co-residents had a mean age of  $72.20 \pm 8.08$  years, 184 female (77.0%), 143 who can read (61.1%), 101 in the current married state or in a stable union (42.3), as outlined in Table 1. Still on the results shown in this table, it was observed that the majority of the elderly are retired, being 156 (65.3%), and with monthly income centered on one minimum wage, 153 (64.0%).

Table 1. Sociodemographic characteristics of the participants. Victory of the Conquest-BA, 2019.

Variables	Mean ( $\pm$ sd)	% Give me an answer	no	%
	72.20 ( $\pm$ 8.08)	100	239	-
Age, years				
Sex		100		
Male			55	23.0
Feminine			184	77.0
Read		97.9		
Yes			143	61.1
Not			91	38.9
Schooling		97.5		
None			81	34.8
Incomplete			108	46.4

Primary			
Complete			
primary	28	12.0	
Complete Elementary	5th	2.1	
Medium			
Complete	10	4.3	
Graduated	1	0.4	
<b>Marital Status</b>	99.2		
Never married	4	1.7	
Married / living together	101	42.3	
Widower	99	41.4	
Divorced / Separated	33	13.8	
<b>Retirement</b>	96.2		
Yes	156	65.3	
Not	74	31.0	
<b>Monthly income</b>	95		
One minimum wage	153	64.0	
Between one and three minimum wages	65	27.2	
Greater than four minimum wages	4	1.7	
No income	5th	2.1	

Sample standard deviation; Source: Research Data.

The family arrangement of the sample is predominantly composed of grandchildren 137 (57.3%), sons 132 (55.2%), daughters 129 (54.0%) and husband / partner in 97 (40.6%). In general, elderly co-residents are satisfied with their family relationship in 219 (97.8%) cases, as shown in table 2.

Table 2. Composition of family arrangement of the interviewed elderly. Victory of Conquest - BA, 2019.

Variables	% Give me an answer	N	%
<b>Husband / mate</b>	100		
Yes		97	40.6
Not		142	59.4
<b>Parents</b>	100		
Yes		5th	2.1
Not		234	97.9
<b>Children</b>	100		
Yes		132	55.2
Not		107	44.8
<b>Daughters</b>	100		
Yes		129	54.0
Not		110	46.0

<b>Brothers Sisters</b>	100		
Yes		6th	2.5
Not		233	97.5
<b>Grandchildren</b>	100		
Yes		137	57.3
Not		102	42.7
<b>Other relatives</b>	100		
Yes		16	6.7
Not		223	93.3
<b>Other people (not relatives)</b>	100		
Yes		13	5.4
Not		226	94.6
<b>Satisfied with the relationship</b>	93.7		
Yes		219	97.8
Not		5th	2.2

Source: Research data.

According to the condensed data in Table 3, the elderly co-residents say they are satisfied with life, 227 (95.05%).

Table 3. Life satisfaction of the elderly co-residents. Victory of Conquest - BA, 2019.

Variables	% Give me an answer	no	%
<b>Life satisfaction</b>	98.3		
Pleased		227	95.0
Dissatisfied		8th	3.3
They did not answer		4	1.7

Source: Research data.

Of the survey participants, 127 had self-rated health (53.8%), followed by 65 for good (27.5%). Of the elderly, 117 (58.2%) felt better in health than other elderly of the same age. The most self-reported diseases or accidents in the sample were systemic arterial hypertension, 190 (80.5%), falls in the last 12 months, 88 (38.4%), and 81 (35.1%) arthritis, rheumatism and arthritis. cases, as outlined in Table 4.

Table 4. Composition of self-perceived health of respondents. Victory of Conquest - BA, 2019.

Variables	% Give me an answer	no	%
<b>Health self-perception</b>	98.7		
Great		3	1, 3
Very good		10	4.2

Good	65	27.5
Regular	127	53.8
Bad	31	13.1
<b>Health compared to other seniors of the same age</b>	84.1	
Best	117	58.2
Igual	52	25.9
Worse	32	15.9
<b>Self-reported illnesses / accidents</b>	—	
Systemic arterial hypertension	190	80.5
Fall in the last 12 months	88	38.4
Arthritis, Rheumatism, Arthrosis	81	35.1
Diabetes Mellitus	63	26.8
Urinary incontinence	58	25.0
Problem nervous or psychiatric	28	12.0

Source: Research data.

The results of the crossover of data between self-perceived health and life satisfaction of the sample, expressed in Table 5, revealed that positive cases of self-perception of health are correlated with higher frequencies of life satisfaction ( $p = 0.02$ ).

Table 5. Association of self-rated health and income with life satisfaction of the sample. Victory of Conquest - BA, 2019.

Variables	Life satisfaction		$p^1$
	Pleased	In satisfied	
<b>Health self-perception</b>			
Great	3 (100.0)	—	0.02
Very good	10 (100.0)	—	
Good	62 (98.4)	1 (1.6)	
Regular	124 (98.4)	2 (1.6)	
Bad	26 (83.9)	5 (16.1)	
<b>Monthly income</b>			
One minimum wage	148 (96.7)	5 (3.3)	0.685
Between one and three minimum wages	60 (95.2)	3 (4.8)	
Greater than four minimum wages	4 (100.0)	—	

No income	5 (100.0)	—
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Pear Pearson's chi-square test; Source: Research Data

In the present study, as described in the results, it was possible to show that the co-residence of the elderly analyzed had a greater share in living with grandchildren (57.3%), sons (55.2%) and daughters (54%). According to the study by Silva, Júnior and Vilela (2014) [9], it was observed that in most elderly homes lived three or more residents (63.9%). Camarano et al. (2004) [10] define co-residence as coexistence among elderly people with children and / or grandchildren in the same home space, and this coexistence in family may be the result of several factors, which may be related since the lack of financial resources by both the elderly and their families, as the elderly's need to be cared for by a family member due to the impairment of their autonomy and independence [6].

The co-residence strategy benefits both younger and older generations with the presence of affection, caring, stability, cultural transmission, and love relationships. However, this interaction with different generations can also be marked by the occurrence of conflicts, resulting in negative points for the parties involved. Such conflicts may be geared to the divergences between ideas and opinions, which are influenced by different worldviews, each marked by its time, which may result in possible mishandling and neglect [11]. Regarding the level of satisfaction of these elderly with family relationships, the study obtained a positive result, in which 97.8% say they are satisfied. Studies by Meira et al. (2015) [12] show an equally high estimate when it comes to satisfaction with family arrangements, where 83.1% of the elderly are satisfied with co-residents. This shows that, despite the conflicts generated within the household, which is shared with children and / or grandchildren, the family plays an important role in this aging context, as it is seen as the basis for promoting support, support and protection of its members, predominating the feeling of love and affection among the members [4].

Regarding income, the study found that 65.3% of the elderly are retired, and 64% of this population live with only one minimum wage. The main determinants of the home arrangement of the elderly are demographic, socioeconomic and health. Income is pointed as one of the main factors that lead to co-residence. Thus, retirement can be considered attractive, both for relatives seeking to enjoy their resources, especially those living in situations of low purchasing power, as well as for elderly people who suffer financial needs [13].

It is also noteworthy that, in many cases, the elderly become the sole financial provider of the house, because

even with spending on medicines and other health treatments, they have a higher income than young people, since many of them are unemployed [14]. In addition, as a result of high unemployment, divorce, or even difficulty in establishing their families, adult children have been staying longer in their parents' home or even returning to their parents' home because of separation from their spouse, or return with wife and children for financial reasons. This makes the elderly remain the head of the family [6].

Thus, all this reality could suggest that the elderly were led to negative thoughts about co-residence and, consequently, have worse perception about life satisfaction, however the present study showed that 95.0% are satisfied with life, which It may be a reflection of the satisfaction they have in matching their family members. According to Reis et al. (2013) [15], elderly co-residents are more satisfied with their lives, because aging close to their families minimizes the occurrence of negative conditions regarding the perception of life and health. The benefit of this family arrangement is related to the company, the protection and support offered by family members, resulting in a satisfactory aging.

Despite the presence of high prevalence of chronic degenerative diseases and other diseases present in the study, self-perception of health of the elderly was referred to as "fair" in most cases (53.8%) or "good" (27.5 %). Compared to other seniors of the same age, 58.2% say they have a "better" state of health, even if it has not been rated "excellent" or "very good", but they still consider themselves healthier than other individuals in same age group. This can be justified by the World Health Organization (WHO) definition of health, where health is "a state of complete physical, mental and social well-being and not just the absence of illness and disease". Thus, self-perception of health involves aspects of physical, cognitive and emotional health. How people perceive their own aging and health can be an essential indicator of their adaptation and successful old age, bringing benefits to both their physical and emotional health. The relationship with family and friends, social and cultural factors positively influence the perception about their health and also about aging [16].

Observing the results of this study that there is an association between life satisfaction and self-perception of health, it is emphasized that this result may further help in understanding the discussion about the repercussions of co-residence, as well as understanding the health-care process. disease from the individual's own perspective and the possible impacts that living with the family can influence on their self-image and, consequently, on life



satisfaction [17]. Thus, it is noted that the various aspects of emotional, psychological and social impact on the perception of health and life, and that these two variables influence each other. Thus, the important role that co-residence plays in the lives of the elderly stands out.

#### IV. CONCLUSION

From the study, it is concluded that the elderly living in co-residence are satisfied with the family arrangement, and that this variable is influenced by the perception about their health. Regarding income, this variable was not associated with life satisfaction, and it is possible to observe that some elderly, even with a considerably low income, said they were satisfied with life.

Given this, it is necessary to know better the family arrangement in which the elderly are inserted, so that they receive a deeper look about their needs, especially for health professionals who deal directly with these individuals, so that they can offer them a more humane care and assistance focused on prevention and health promotion.

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