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QUALITY OF LIFE OF GERIATRIC PEOPLE IN ARAD: SOCIO-ECONOMIC AND MEDICAL ISSUES

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ABSTRACT. Ageing, one of the most important global problems of humanity, represents the accumulation of changes in a human being over time, encompassing physical, psychological, and social changes. A study was conducted on a sample of 400 women and 400 men aged between 41 and 80 years in Arad. Individuals were selected from both urban and rural areas, being able to highlight the differences between the lifestyles of the two areas. In quantitative research the instrument of investigation, the questionnaire, was individually applied by doctors and residents. The main indicators that we investigated are: age, occupation, and due to the retirement debut, the environment and living conditions, education level, family history, personal history physiological and pathological, morbid condition, medication administered. We also investigated the nutritional factors, physical activity, psychosocial factors and neuropsychiatric activity. The study objective was to analyze the effects of aging on central quality of life of the elderly in Arad. The problem of population aging is a great social problem in a society where demographic statistic show an accelerated growth in the number of older people; Moreover, this age group has a wide range of needs, whose knowledge and understanding require special attention from all those with whom they have contact.
Keywords: Ageing, quality of life, medical problems, socio-economic issues

INTRODUCTION

One of the most important global problems of humanity is the aging of the population. Tissues and organs damage in an asynchronous way to the same person, is a poorly known aspect of senescence, but fundamental in knowledge of the human body as a whole. Knowing the mechanisms of aging and elucidating the risk factors can help prevent some effects of early senescence. For this, it requires linking all aspects of the human body, taking into account the heterogeneity and complexity of the process of senescence. It is necessary to assess the elder in the public health plan, including health maintenance, disease prevention, weaknesses, fragility, the aim being to improve quality of life, quality and organization of care, and the economic aspect of health.

World Health Organization (WHO) considers that aging is a process that takes place throughout life, beginning even before we are born. Functional capacity of human biological organism increases during the first year of life, peak in early adulthood and naturally declines thereafter. The decline is more pronounced depending on various external factors that acted throughout life (Sorescu M, 2005)

OBJECTIVES AND ASSUMPTIONS

A study was conducted on a sample of 400 women and 400 men aged between 41 and 80 years in Arad. Individuals were selected from both urban and rural areas, being able to highlight the differences between the lifestyles of the two areas.

The main indicators that we investigated are: age, occupation, and due to the retirement debut, the environment and living conditions, education level, family history, personal history physiological and pathological, morbid condition, medication administered. We also investigated the nutritional factors, physical activity, psychosocial factors and neuropsychiatric activity. The study objective was to analyze the effects of aging on central quality of life of the elderly in Arad.

We pursued the following main objectives:

identification and stratification of needs faced by older people in the county of Arad;

outlining possible situations of coexistence;

the estimation of the life quality of the elderly;

introduction of the idea of multidisciplinary team in the geriatric system in providing medical, social and psychological services to elders.

Based on information learned up to this level of analysis, we started research on the following assumptions:

health and income are the main problems facing the elderly in general, respectively, in Arad;

quality of life of older people is directly proportional to monthly income;

necessary medicines directly depend on monthly income.

MATERIALS AND METHODS

Analysis of the needs of the elderly in Arad involved identifying and assessing the needs of the elderly in the Arad County. Results are based on data obtained using several methods of research.

In quantitative research the instrument of investigation, the questionnaire, was individually

applied by doctors and residents. To limit the subjectivity operators in choosing subjects we used quota sampling, we prescribed classification of these elections in certain "quota": age, sex, origin, so that the final sample to have a similar percentage distribution and because the factors that we lead them to not be influenced by modifiable factors such as age and gender.

The practical part of the study was to determine height, weight, skin fold thickness, waist circumference, blood pressure and blood glucose.

The criteria for patients selection were: patients to be from Arad County, to be between 41 to 80 years old and to sign the informed consent. Exclusion criteria of people in the study were: age under 40 years and age over 81 years, pathologies and high degree of physical deterioration and mental not to influence the study, patients with mental retardation or diagnosed with dementia and the refusal of people to enter the study.

Data were statistically analyzed using the programs SPSS 14.0, Epi Info 7 and Microsoft Excel 2007.

RESULTS AND DISCUSSIONS

In compliance with the criteria established at the beginning of the project, there were applied 800 questionnaires to individuals in Arad County; the proportion between the women and men was the same. Regarding the age of the persons included in the study, we tried keeping an approximate equally among the four age groups. Thus, we had 233 people in the study aged 41-50 years, 213 people aged 51-60 years (26.76%), 162 persons were aged between 61-70%, representing a percentage of 20.35% and in the age group 71-80 years were 192 people (23.62%).

Age	Frequency	Percent	Cum. Percent	95% CI Lower	95% CI Upper
41-50 years	233	29.27%	29.27%	26.16%	32.59%
51-60 years	213	26.76%	56.03%	23.74%	30.01%
61-70 years	162	20.35%	76.38%	17.64%	23.35%
71-80 years	192	23.62%	100.00%	20.74%	26.76%
TOTAL	800	100.00%	100.00%		

95% CI Lower - upper 95% confidence limit; Upper- 95% CI Lower 95% confidence limit;

The graphic below shows that the number of institutionalized patients increases according to age, the most people institutionalized were recorded in the category of 71-80 years (the report institutionalized / un-institutionalized = 0.33 is higher) while in the age group 41-50 years the report institutionalized / un-institutionalized = 0.12 is the lowest.

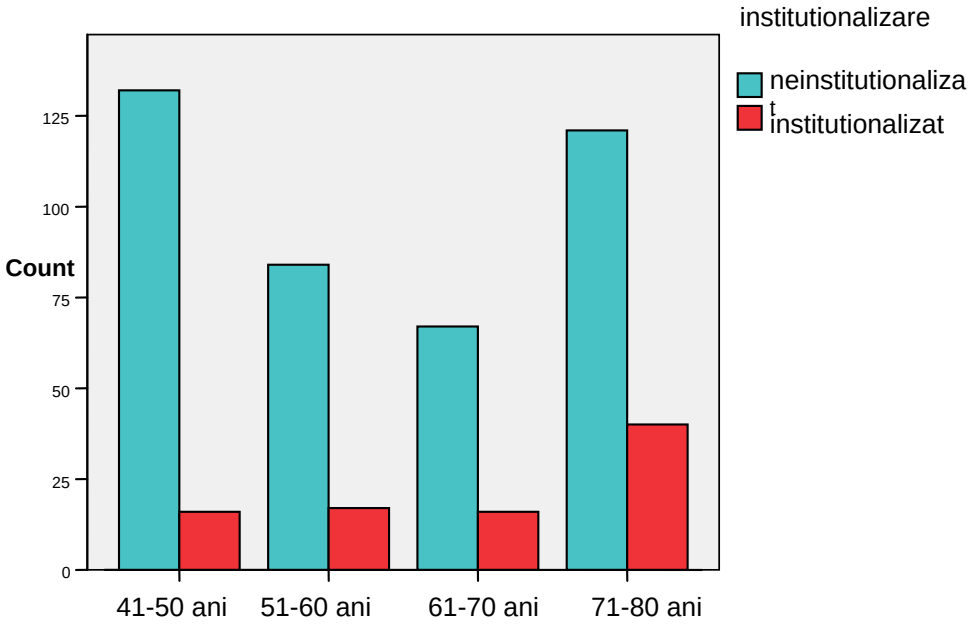


Chart. 1: Distribution by age characters and institutionalizing

In the study, there were classified people from rural areas - individuals 38.05% and urban areas - 68.05% since the study was applied to Arad County, and having these two categories of people, we can compare the variables to see differences in terms of aging in the 2 areas Chart no. 1: Distribution of people by age and

institutionalization. We can observe that urban areas have more incomes over 601 lei than the rural areas. In rural areas people's income is generally below 600 lei. Half of the respondents are married or had stable relationships 52.44%, 9.76% are people who have divorced partner / A, 181 persons have the dead spouse 22.35% 15 122 people are single, 27%.

According to Art No. 51 of the pension law, in the public pension system there are granted the following types of pension: retirement, early retirement, partial early retirement pension, disability pension, survivorship pension. The standard age for retirement is 65 years old for men and 63 years old for women. The minimum contribution period is 15 years for women and men. Full contributory period is 35 years for women and men.

From the data obtained we see that most people are retired (441- 59.12%) - d 332due to age and 109 on health grounds, 110 people are unemployed, and only 195 people (26.14%) have jobs.

Deindustrialization and the abolition of jobs from the last years led to an abnormality of an economy and society where the number of retired and unemployed it's bigger than the number of people who have stable jobs, thus the society can't work only on a deficit.

The statistics regarding the current situation in Romania illustrate a vulnerable fraction of the Romanian economy, respectively, on the number of employees/number of retired people. For 15 years, the number of the employees and the tax payers who also fuel the budget of the public fond of pensions is visibly reduced that the number of retired.

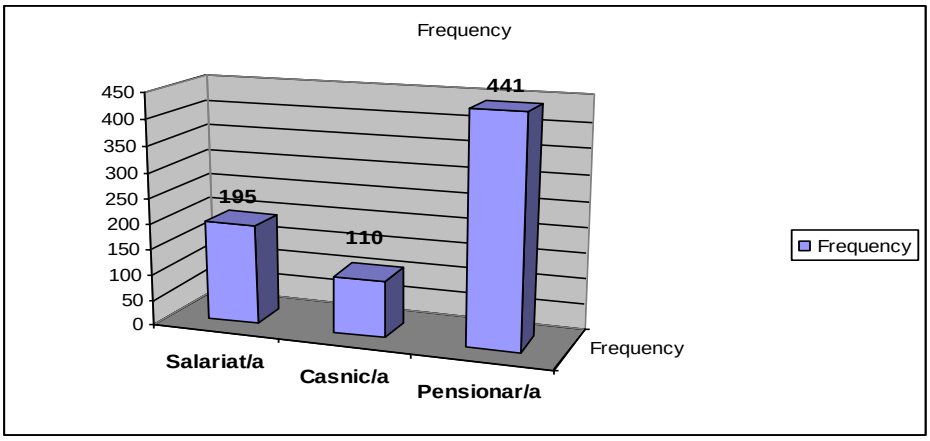
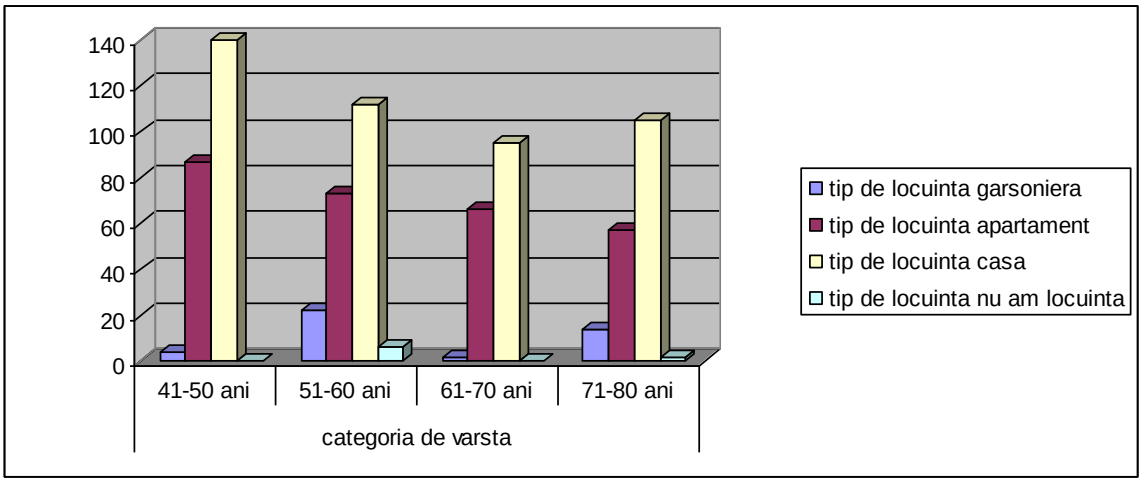


Chart. 2: Distribution of characters by occupation

An important issue raised by the people we questioned was the "Self-care ability," the ability to manage themselves in their own house. Elderly people receiving social services consider that there are many elderly people who are unable to cope alone, that being the reason for choosing residential centers. There are others who are forced to give dependents to a person to receive support. Older people who are not receiving social services have problems especially when making purchases and preparing food. In the study, 5.33% live in a studio, 29.37% in an apartment, 53, 18% live in a house, and 12.12% do not live in their own home and of these, 89 are institutionalized persons, and 8 are homeless 1%. The average of the rooms on a household of the institutionalized people from Arad County is 2,92, with a standard deviation of 0,93.

The result of the test $\chi 2$ (9) =30,006, $p<0,01$ shows us that there are significant differences between those 16groups that we obtained, taking into account that aging is an important factor that determines people to change their household to a house. Part of the reasons that determined these changes are the deficit in mobility, lack of income, and ceasing their apartments to their children.



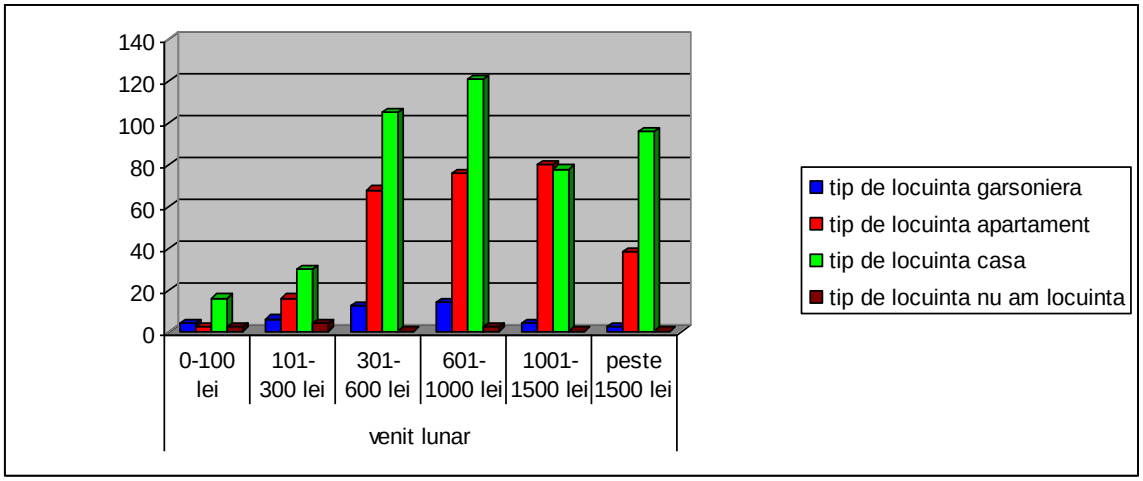
		Household type				Total
		studio	apartament	house	Don't have one	
Monthly income	0-100 lei	4	2	16	2	24
	101-300 lei	6	16	30	4	56
	301-600 lei	12	58	105	0	175
	601-1000 lei	14	76	101	2	193
	1001-1500 lei	4	45	78	0	127
	over 1500 lei	2	38	96	0	136
Total		42	235	426	8	711
p<**0.01**						

The result of the test $\chi 2$ (15) =77,157, p<0.01 shows that there are notable differences between the 24 groups that we obtained. From the total of participants in the study, we removed the institutionalized people. The data we obtained shows that the number of the homeless is greater than the ones who have a house in the groups with an income below 300lei .The number of people who live in a studio is greater than the ones who live in different types of household in the groups who have an income below 1000 lei. Also,in the 1001-1500 lei income category the number of people who live in apartments is greater than the ones who live in a house.

Income based on needs	No studies	Primary school	Secondary school	Vocational school	Highschool	Higher education	
Not enough for bare necessities	18	24	26	45	28	0	141
Enough only for bare necessities	18	41	36	39	76	28	238
Enough only for a decent living	1	24	23	45	51	33	177
I can buy some expensive stuff	6	14	12	27	35	35	129
I succeed in having everything I need	0	12	12	9	29	53	115
Total	43	115	109	165	219	149	800
The chi square test > 0,001							

Also from the data we obtained, we can observe that there is a strong correlation between the income they obtained and the previous studies they followed. None of the people who didn't graduate can't afford to ensure all their needs. However, the vast majority of the elderly barely succeed in providing the necessary minimum for themselves (29,37%)or in maintaining a decent living(22,78%).between 0-1000 lei , suggesting a raise in the discrepancy between the ones with high and low incomes. In the 61-70 years old category we're recording the lowest incomes.

The result of the test $\chi 2$ (15) =115,095, p<0.01 shows us that there are significant differences between the 24 groups we obtained.



The living conditions represent one of the main factors for the comfort of a human life and even more for the elderly, who are touched by vulnerability and special needs. If the life standards predict certain parameters regarding the living space of a person, in Romania these standards are achieved only in a certain percentage. The conditions and their appreciation are different and their impact on the satisfactions of elderly's life is significant.

A part of the ones who still live at home are satisfied with their means of living, except for the fact that during the winter months they can't afford heating as they would want to. Another part think that their incomes aren't enough to maintain a decent living and their household.

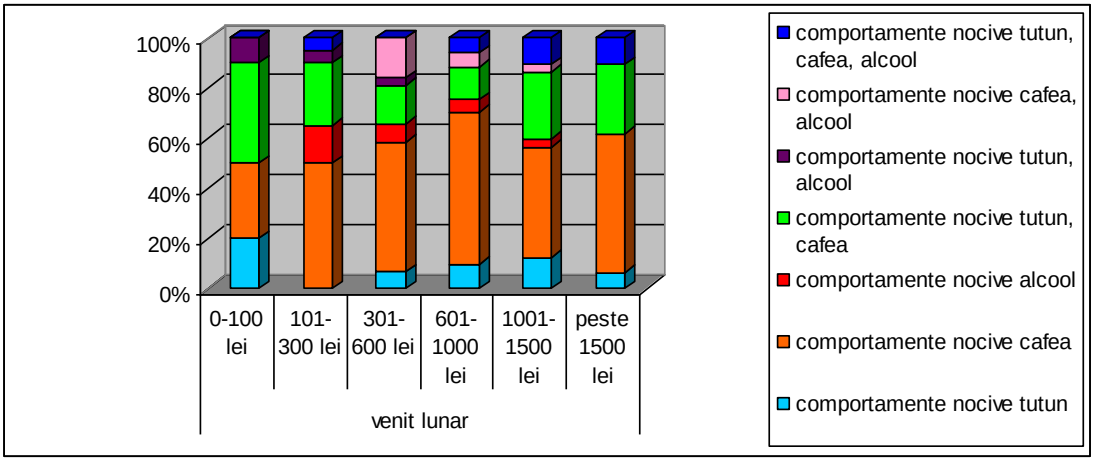
Over half (57,87%)from the people in this study appreciate their life quality as good. A percentage of 14,09% think that they live under good conditions while 21.75% think that their living conditions are mediocre. Poor living conditions have a percentage of 6,29%, correlated of course with a lack of household, low incomes and lack of jobs.

The resulting information from our study confirms the fact that when we speak about the life quality, we have to keep in mind a very important aspect, which is, the income. A better life is strongly connected with a greater income or at least an income which can provide a decent living.

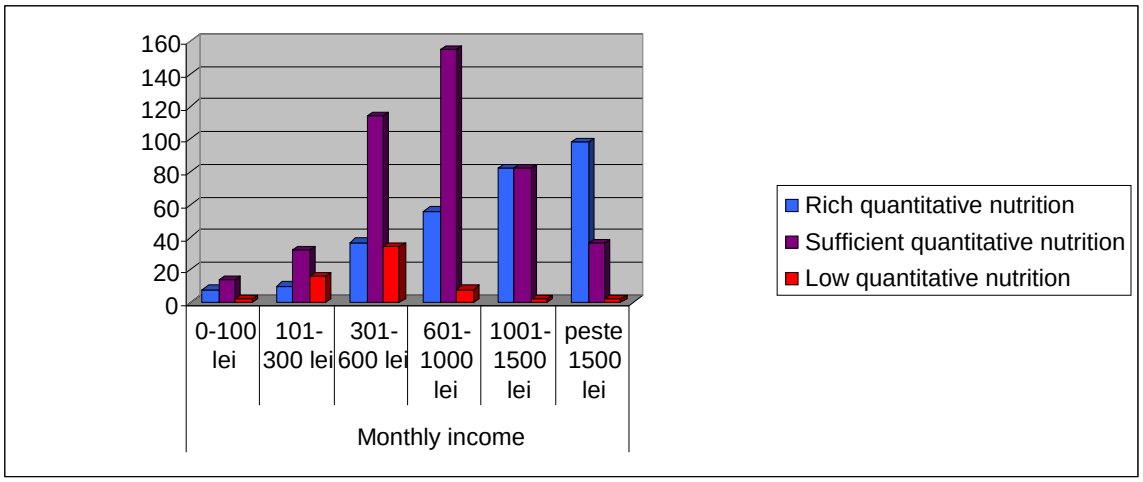
The data we obtained from the interviews are correlated with the data resulted from the questionnaire. The majority of the institutionalized people are complaining about their small pension, after a lifetime of work. Because of the lack of money, they can't achieve some things they dreamed about since they were young

However, the life quality depends also on the kind of study we did. From the data we obtained, we can see that in the really good life conditions category, the people who graduated university are the vast majority, while on the good life conditions category, the greatest number of people is represented by those who only finished high school. The people from the mediocre life conditions category graduated from a vocational school whereas in the poor life conditions category there are people without studies or only graduated from middle school. The result of the test $\chi 2$ (15) =180,992, $p<0.01$ shows us that there is a statistical relevance betwwn the type of studies and their life conditions.

Out of the 800 people we interviewed a big percentage,75,75% have harmful behaviours. Comparing the harmful behaviours according to income , we can see that tobacco is used by people with an income between 601-1500lei , which is understandable , considering the rice of apckof cigarettes. Coffee is used by almost all the peple , regardless of income , but alcohol is consumed almost every day by people with lower income, between 100-1000 lei.We can observe that the association between tobacco and coffee is greater in the people with an income above 600 lei ,whereasthe association between tobacco and alcohol is notable only in people with a monthly income below 600 lei .None of thepeople from our study declared consumtion of drugs. The result of the test $\chi 2$ (30) =127,279, $p<0.01$ shows us that there are important differences between the 42 groups that we obtained.



The statistics regarding nutrition correlated with income shows that as the income increases, the frequency of people who say they have a rich diet, increases as well. In the category with an income below 1000 lei/month, the ones who appreciate their nutrition as satisfying represent a greater number, whereas in the category with a monthly income of over 1500 lei the ones who would characterize their nutrition as a rich diet represent a larger group. The result of the test $\chi 2$ (10) =186,744, $p<0.01$, shows us that there are significant differences between the 18 groups we obtained.



A proper diet in terms of quality and quantity maintains a good functioning of the body. The damage of the balance, due to aging, can cause a number of diseases that make the elderly become more fragile.

In terms of quantity, 55.62% of the people we surveyed believe that food is sufficient, 36.38%, that food is even rich, and 8% are those who think that food is insufficient.

Everyone is responsible for their own health, and scientific studies show that a proper diet and adequate physical activity can improve health and even prevent a lot of diseases. Thus, regular exercise helps to reduce the risk of diabetes and cardiovascular diseases.

The effect of sports on health depends very much on intensity, duration and frequency. An important part of the benefits of exercise are obtained when exceeding a certain duration (10 minutes) of constant physical movement, while the optimal effects are when we reach a length of 30 minutes per day.

There are a lot of benefits that physical activity that we practice at home or at work can bring to us. A moderate physical activity, practiced every day can improve the health and life quality. All of our body's systems can benefit from the physical activity we do.

With age and the more associated pathologies, the geriatric patients refuse any physical activity. From the data we obtained, we can see that the number of people who exercise every day dropped from 350 people (the ones who used to do sports in the past) to 293 and if in the past only 10,13% of the people didn't exercise on a daily basis , today the percentage raised to 16,38%.

More than half of older people need medicines (69.63%). In their view, most of the income goes to purchase medicine, but note that low income earners have also part of the medication they need. Yet we have people who can't afford medicines, these people are part of the class with monthly income below 600 lei. The data shows that most respondents say they have access to medication, even among those with very low incomes. However, the ratio of those who have access to medication / no access to medication is significantly higher in groups who have more than 600 lei.

The result of the test $\chi 2$ (15) =54,726, $p<0.01$, shows us that there are significant differences between the 24 groups we obtained, regarding elderly's access to medicine based on income.

		Access to medication				Total
		yes	Usually yes	partial	no	
Monthly income	0-100 lei	4	0	2	0	6
	101-300 lei	14	6	2	6	28
	301-600 lei	80	20	23	14	137
	601-1000 lei	109	31	16	4	160
	1001-1500 lei	87	12	12	6	117
	peste 1500 lei	92	13	0	4	109
Total		386	82	55	34	557
$p<0.01$						

From this point of view, we can see that we need a greater responsibility from the society regarding the prolongation of the elderly autonomy and capitalization of their physically and intellectually potential. The functional autonomy is influenced by the daily exercise and the feeling of utility. If in the family or in society you tell an older person that for him there's nothing to do, others taking over his activities, that's not caring, only diminishing their capabilities. That's why it's important that the adequate activities and conditions to be created. For an elderly, participating in the social life, it implies the family, society and the person itself ,while in this participation , keeping their functional autonomy has a direct , important and beneficial relation.

		Degree of autonomy/dependence			Total
		autonom	partially dependent	dependent	
Relationship with the family	Very good	277	92	43	412
	Good	202	95	31	328
	Satisfying	14	24	0	38
	Poor	8	4	2	14
Total		501	215	76	792
p = 0,018					

As shown from the statistics, there's a very strong correlation between the monthly income of a person and their degree of autonomy. Therefore, we can notice that in the over 1500 lei categories and the ones from under 1000lei the ones that are independent represent a greater portion than the ones who are dependent and partially dependent in comparison with the other income categories. In the 101-300 lei category, there's the lowest portion of the independent patients compared to the ones who are dependent and partially dependent.

		Degree of autonomy/dependence			Total
		autonom	partially dependent	dependent	
Monthly income	0-100 lei	18	4	0	22
	101-300 lei	22	18	10	50
	301-600 lei	103	56	18	177
	601-1000 lei	126	72	20	218
	1001-1500 lei	111	37	18	166
	peste 1500 lei	110	20	4	134
Total		490	207	70	767
p<**0.01**					

As shown, the social activity of older people determines the dependence and wellbeing. But not only that, it has a very big influence on mental health. The data shows that amongst those who don't forget things, memories, are predominantly those who have a very good relationship with their family. The number of those who have a poor relationship with their family is greater among people who forget quite often and very often things. However, the number that falls in the last two groups is very low which does not allow us to consider only the differences in the first two categories of each variable (who does not forget things and those who rarely forget things and those who have a very good relationship with their family).

		Forgetting problems				Total
		no	rarely	Quite often	Very often	
Family relationship	Very good	238	123	44	8	413
	Good	148	130	32	8	318
	satisfactory	20	6	6	0	32
	poor	10	0	12	4	26
Total		416	259	94	20	789
p<0.01						

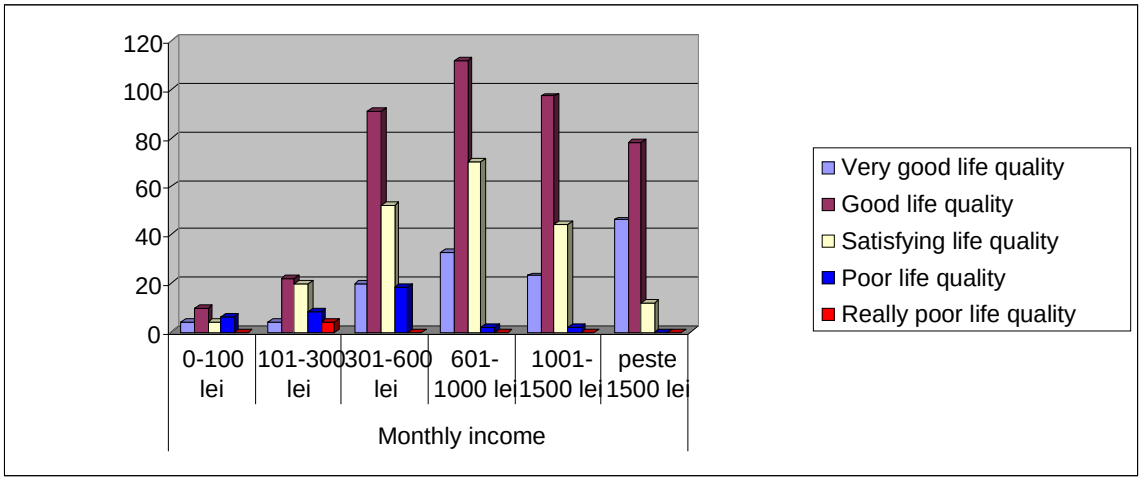
The desire to have "a quality life" is naturally desirable, especially because of the strong emphasis that modern society puts the actual experience of life, linking living with vitality and dynamism on the one hand, and the quality (Products, services), considered one of the most important criteria for evaluation of organized activity. On the other hand, the public seems to consider itself entitled to express satisfaction or

dissatisfaction with living conditions assessment, as a "beneficiary" of social policies and programs. Thus, ensuring the highest possible quality of life for the population gets the ultimate goal of social development. (Bălţătescu S., quality of life, Zamfir C. Stanescu S. 2007, pp.81-82).

The meanings of the concept of "quality of life" are generally ambiguous, since, on one hand, refers to the objective conditions in which individuals live, and on the other hand, what the individuals think about these conditions. It is in this point of view about the quality of public life and that of privacy. In fact, in its essence - as the name implies it - the quality of life implies a qualitative approach to human social life, as it is.

Life satisfaction and self-confidence and peers are global concepts that refer to life as a whole, unlike its specific aspects, granted attention increasingly higher, especially in gerontology.

Income is the most important criteria on which the quality of human life depends on and in general as well of the elderly in particular. The data shows that the income categories over 600 lei are much lower percentage of patients reporting a bad or very poor quality of life. The quality of life is good and very good most commonly reported by the category of income of over 1,500 lei, while the income bracket 101-300 lei are the patients who complain of a very poor quality of life.



The body mass index (BMI) is an indicator for calculating ideal body weight based on height. The body mass index weight group helps determine where a person falls in a weight group, and thus determining the degree of obesity.

Body weight and health have closely dependent relationship. Health status can influence, favorable or not the weight and any decrease or increase in body weight can both damage or improve the condition. Thus, we believe that maintaining a healthy weight is one of the most important ways of maintaining health and avoiding disease risk.

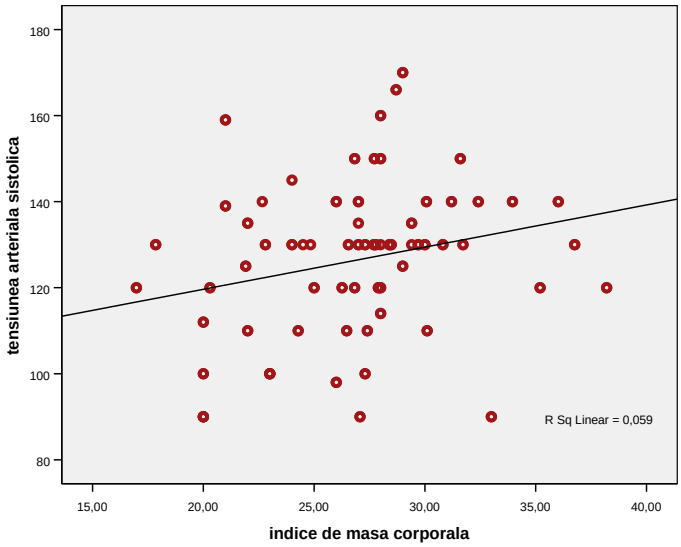
Weight gain increases the risk of health problems such as cardiovascular diseases: heart failure, hypertension, myocardial infarction, stroke, joint disorders, some types of diabetes, and some types of cancer.

Simple ANOVA test results for body mass index, F (3) = 0.985, p> 0.05, shows that there aren't significant differences between the four age groups in terms of body mass index. Instead, there is a weak positive association between diastolic pressure and BMI, r = 0.272 at a p = 0.02 and between systolic pressure and BMI, r = 0.243 at a p = 0.06.

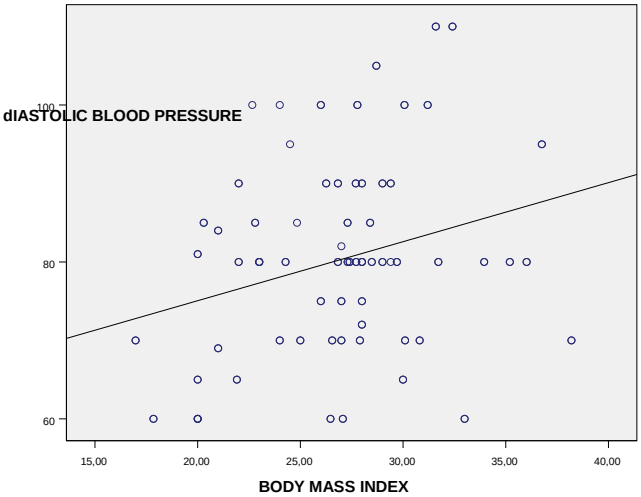
		body mass index	systolic pressure
body mass index	Pearson Correlation	1	,243(**)
	Sig. (2-tailed)		,006
	N	133	127
systolic pressure	Pearson Correlation	,243(**)	1
	Sig. (2-tailed)	,006	
	N	127	466

		diastolic pressure	body mass index
diastolic pressure	Pearson Correlation	1	,272(**)
	Sig. (2-tailed)		,002
	N	468	127
body mass index	Pearson Correlation	,272(**)	1
	Sig. (2-tailed)	,002	
	N	127	133

The relationship between BMI and systolic blood pressure



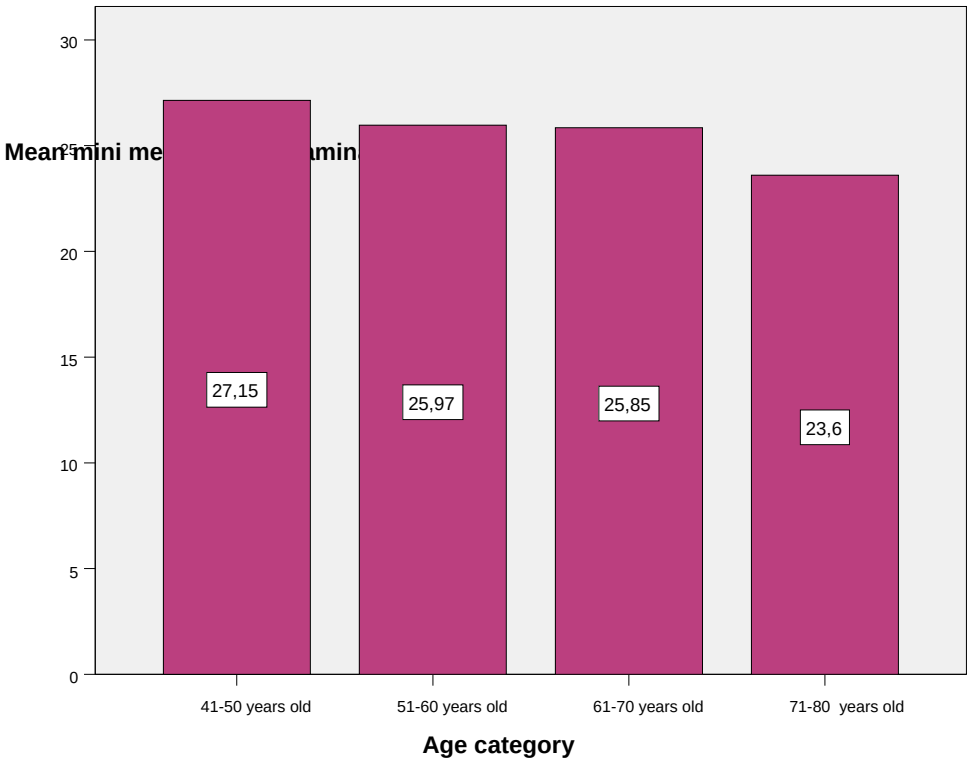
The relationship between BMI and diastolic



Another objective of this project was the cognitive examination of the elderly using Mini-Mental State Examination.

ANOVA test results simply, $F(3, 770) = 14.335$, $p < 0.01$, shows that there are significant differences between the four age groups regarding the medium score obtained from the Mini-Mental State Examination.

The graph shows a decrease in scores on the Mini-Mental State Examination (MMSE) with the advancement in age, with significant differences between categories of 41-50 years (average score Mini-Mental State Examination = 27.15) and 71- category 80 years (average score Mini-Mental State Examination = 23.6)



The results of Student test for independent samples, t (101.362) = 7.085, p <0.01 indicates that there are significant differences between those who are institutionalized and those who are not institutionalized in terms of average scores on the Mini-Mental State Examination.

Family helps the older relative to have a better living standard, thus helping to maintain autonomy for a longer period. Disharmonious family favors the emergence of dependence and cognitive impairment in elderly person through lack of communication and interaction with them. Lack of family is a precipitating factor of cognitive vulnerability and dependence.

The result of the Anova simpla test F (3, 776)=20,527, p<0.01 shows that there are significant differences between the groups with poor relationships with their family and cognitive deterioration.

We can observe that the ones who have a strong bond with their family obtained on an average better score in MMSE than the ones with poor attachment to their families. The average of the scores in MMSE is growing as much as the family connection is better.

CONCLUSION

In the history of Romanian sociology, quality of life is an extensive and lasting research project, which started in the second half of the 70s, has grown in the 90 and the 2000s are considered a moment of "balance sheet" by focalizing on synthesis, construction of social data or by sustaining the public debates with finality in social politics regarding the socio-economics problems of the population. Thus, with over 40 years of continuous research, quality of life has led to the accumulation of enough experience, theoretical and empirical that the life quality sociology can become in a short time, one of the most important branches of sociology, an area of accumulation and scientific innovation.

The problem of population aging is a great social problem in a society where demographic statistic show an accelerated growth in the number of older people; Moreover, this age group has a wide range of needs, whose knowledge and understanding require special attention from all those with whom they have contact.

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