IMPACT OF LEISURE AND SOCIAL ACTIVITIES ON QUALITY OF LIFE AMONG OLDER ADULTS OVER 65 IN EUROPE – SHARE DATA ANALYSIS[|]

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The purpose of this article is to examine the relationship between leisure and social activities, and the quality of life of people aged 65+ in Europe.

Individual data of adults over 65 in Europe were used from the SHARE database (wave 6, 2015). The relationship between 11 selected activities, divided into social, individual, and care activities for loved ones, and quality of life (CASP-12 score) were measured. A binary logistic regression with a random effect was used.

Results suggest that there is an association between active older adults in most leisure and social activities and high quality of life (CASP-12 > 39). In the multilevel analysis, 8 of 11 selected activities turned out to be protective factors for a high quality of life of elderly people in Europe. On the other hand, care activities for loved ones were not associated with a high quality of life. Not providing personal care assistance to people from the same household (OR = 1.56; CI 95%), reading books, magazines, and newspapers (OR = 1.52; CI 95%), and volunteering or charitable activities (OR = 1.36, CI 95%) were associated with higher quality of life. The level of Intraclass correlation coefficient (ICC), the percentage of the variance explained by the variability between countries for all activities, reached 17–19%.

Leisure and social activities except care activities for loved ones have a positive effect on the quality of life of the elderly in Europe. The impact of these activities on the quality of life of older adults over 65 varies across Europe.

***Keywords**: ageing; quality of life; social activities; Europe; The Survey of Health; Ageing and Retirement in Europe.*

INTRODUCTION

Due to demographic ageing driven by the decline in fertility rates to below replacement levels, and a decrease in mortality, a larger proportion of the entire population consists of older people, and a smaller proportion, of people in the

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productive age. Ageing of an individual is associated with decreasing physical and mental health, reducing resilience and adaptability, and changing social roles and potential (Čevela *et al.* 2012), which implies an increase in health care expenses, and social security needs (Vohradílková and Rabušic 2004). From an economic point of view, the goal for seniors is to live longer in good health (CDC 2018), so that the health and social system will be sustainable. According to the World Health Organization definition: 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO 2020). Thus, it is no longer sufficient to study health in terms of mortality and morbidity. Considering the influence of population ageing on policymaking, the study of the quality of life of seniors is crucial.

Quality of life is a multidimensional concept that might be examined from many different points of view, e.g., the quality of life is an 'individual's perception of their position in life in the context of the culture and value systems' (WHO 2012), the result of social, personality, health, economic and social demographic resources (Vidovićová, Kafková and Petrová 2012) or the opposite of economic performance indicators and the idea of a consumerist lifestyle (Duffková and Linhart 2018). Many aging theories consider how older adults adapt to age-related losses to maintain and increase their quality of life (Gibson and Singleton 2012). The thought of active life and involvement in society are included in many of them. The concept of active ageing consists of successful (Rowe and Kahn 1997; Walker 2002) and productive (Bass *et al.* 1993) ageing elements. Activities playing a main role in this concept can take many forms, but it is most often about a healthy and active lifestyle e.g., continuation of economic activity, active participation in the community, volunteering, and, especially, leisure activities (Čepelka 2019). Cultural and sports activities are preferred by seniors in western and northern countries of the EU (Finland, Sweden, Denmark, Germany, the Netherlands, Luxembourg). The elderly educates themselves the most in the Nordic countries and Switzerland. (EUROSTAT 2020) Overall, people in Europe and the U.S. are more likely to be involved in religious, volunteering, and social activities, however in Asia they are more likely to listen to music, watch TV and read. (Lee *et al.* 2014) According to current analysis (Lee *et al.* 2014; Vozikaki *et al.* 2017; Lestari *et al.* 2021; Conde-Sala *et al.* 2017; Park and Byers-Connon 2012), seniors who participate in leisure and social activities report a higher quality of life. Also care activities, such as providing informal help to family, friends or neighbours, i.e., to persons from another household, as well as caring for grandchildren, have a positive relationship with the quality of life (Siegrist and Wahrendorf 2009; Conde-Sala *et al.* 2017). Social and leisure activities might be seen as a new life program, an opportunity to form social bonds, prevent loneliness and social isolation. A good adaptation to old age, i.e. the ability to cope with the changes associated with old age, finding a new meaning of life (Haškovcová 2010), and productive use of own potential (WHO 2002) contribute to a higher quality of life.

The report of the European Foundation for the Improvement of Living and Working Conditions identified twelve key domains relevant to people's quality of life which include recreation and leisure activities, as well as dimensions of culture and identity, political resources, and human rights related to the country where people live (Fahey *et al.* 2003). In countries such as the United Kingdom, Ireland, and the Nordic countries mental well-being increases with age. On the other hand, a decrease might be seen in southern and eastern countries, particularly in the Balkan area, where older people seemed to be at risk of depression. Life satisfaction declines in older ages in Central, Mediterranean Europe, Balkan and Baltic area (Jungblut and Anderson 2019). Based on the different experiences of old age across European countries, the hypothesis about the various impacts of activities on the quality of life was put forward. This study aimed to examine the impact of leisure and social activities on the quality of life among older people aged 65 across Europe.

DATA AND METHODS

Design and studied population

Individual data from wave 6 of Survey of Health, Ageing and Retirement in Europe (SHARE) database from 2015 were used, so the topic of quality of life in the article was examined cross-sectionally. Data of older adults over 65 from 17 European countries were analysed. The effect of 11 selected activities, divided into social and individual activities, and care activities for loved ones, on the quality of life was measured.

Instruments

The independent variable was based on questions about participation in social and leisure activities in the last 12 months (except for a question about Internet usage in the last seven days). For this article, activities were divided into three groups according to their type: social, individual, and care for loved ones. This division assumed that social activities were primarily performed in the company of several people, while individual activities were performed independently. Care activities for loved ones are completely different, because physical and mental strength is needed. Participation or non-participation was determined based on the individual's declaration.

1. Social activities:

a. Doing voluntary or charity work ('volunteering');

b. Going to a sport, social or other kind of club ('club');

c. Taking part in a political or community-related organization ('citizen initiative');

d. Playing cards or games such as chess ('games').

2. Individual activities:

a. Attending an educational or training course (‘education’);

b. Reading books, magazines or newspapers (‘reading’);

c. Doing word or number games such as crossword puzzles or Sudoku (‘puzzles’);

d. Using internet (‘internet’).

3. Care activities for loved ones:

a. Taking care of grandchildren (‘care of grandchildren’);

b. Giving help to others outside the household (‘help to others’);

c. Providing help with personal care to people from the same household (‘care in the household’).

The dependent variable *quality of life* was dichotomized from the variable CASP-12 score. Based on the answers to the CASP-12 battery measuring control, autonomy, self-realization and pleasure, the total score of the respondent ranges from 12 to 48 points. A higher score indicates a better quality of life. (Siegrist and Wahrendorf 2009) A value of 39 is usually used as the cut-off point separating a high quality of life (Vozikaki *et al.* 2017; Conde-Sala *et al.* 2017; Portellano-Ortiz *et al.* 2018), i.e., a respondent achieving a value higher than 39 on the CASP-12 scale is also considered as an individual with a high quality of life in the following analysis.

Control variables, which should eliminate the undesirable influences on the association between the quality of life and activities, included demographic, socio-economic and health characteristics of respondents, such as age, gender, education, marital status, size of place of residence, household income, current job situation, limitations in instrumental activities of daily living, limitation in mobility and self-perceived health. The variables selection has been made based on previous analyses (Portellano-Ortiz *et al.* 2018; Siegrist and Wahrendorf 2009; Conde-Sala *et al.* 2017). The relationships between control variables and quality of life were statistically significant, except for the gender variable. Despite the fact that this analysis did not show an association between gender and quality of life, gender was incorporated in the analysis too, because it is the basic variable that was found significant in other studies (Portellano-Ortiz *et al.* 2018; Siegrist and Wahrendorf 2009; Conde-Sala *et al.* 2017). Data from 17 European countries were included, which is the maximum number of countries with full availability of the necessary data.

Statistical analysis

A descriptive analysis of socio-economic, demographic and health variables was carried out, using measures of absolute and relative frequencies. The dichotomized dependent variable CASP-12 was measured by relative frequencies and activities by prevalence.

The method of binary logistic regression analysis with mixed effects was applied to fulfill the objectives. In this analysis, the binary dependent variable was the quality of life based on the CASP-12 indicator, 0 – low (66% of respondents) and 1 – high (34% of respondents) quality of life. Logistic regression analysis does not require any assumptions of normality, linearity and homogeneity of variance for independent variables. Although information may be lost compared to linear or ordinal regression analysis, binary logistic regression was adequate for the mentioned goal. The result of the analysis was the odds ratio (OR), expressing how many times a person in a given group had a higher chance that the observed phenomenon (high quality of life) will occur for the dependent variable than a person in the selected reference category, if the same level of the other independent variables in the model is maintained (Austin and Merlo 2017). For the reference category the regression coefficient was equal to zero and OR was equal to 1. The variable category with the smallest predicted chance for a high quality of life was chosen as the reference.

It can be expected that participation in activities and the impact on the quality of life was influenced by the country in which the person lives. The level of the Intraclass correlation coefficient (ICC) in multilevel modelling provides the percent of the variance explained by country variation. The mixed-effect model for the relationship between participation in leisure and social activities and quality of life controlled for socio-economic, demographic, and health variables, with country as a random effect. All other control variables entered the analysis by default. The models were created separately for each activity, 11 models in total. IBM SPSS Statistics 23 software was used for statistical analysis.

RESULTS

Description of the sample

In total, data are used for 37,220 respondents, 55% women and 45% men (*Table no. 1*).

Table no. 1

Socio-economic and demographic characteristics of data sample, selected European countries, age 65+, 2015

Variables	Categories	Men		Women		Total	
		n	%	n	%	n	%
Total		16 754	45.0	20 466	55.0	37 220	100.0
Age	65–69	5 368	32.0	6 120	29.9	11 488	30.9
	70–74	4 303	25.7	4 978	24.3	9 281	24.9
	75–79	3 396	20.3	4 120	20.1	7 516	20.2
	80+	3 687	22.0	5 248	25.6	8 935	24.0

Education	Primary	3 614	21.6	5 588	27.3	9 202	24.7
	Lower secondary	2 403	14.3	3 679	18.0	6 082	16.3
	Upper secondary	5 859	35.0	6 276	30.7	12 135	32.6
	Tertiary	3 703	22.1	3 103	15.2	6 806	18.3
	Not specified	1 175	7.0	1 820	8.9	2 995	8.0
Marital status	Married, registered partnership, or living together with spouse	13 250	79.1	10 704	52.3	23 954	64.4
	Divorced, married, but living separated with spouse	1 032	6.2	1 746	8.5	2 778	7.5
	Never married	692	4.1	861	4.2	1553	4.2
	Widowed	1 710	10.2	7 096	34.7	8806	23.7
	Not specified	70	0.4	59	0.3	129	0.3
Current job situation	Retired	15 605	93.1	15 775	77.1	31 380	84.3
	(Self)employed	634	3.8	412	2.0	1 046	2.8
	Non-working*	164	1.0	3 304	16.1	3 468	9.3
	Other	351	2.1	975	4.8	1 326	3.6
Size of place of residence	A big city	2 392	14.3	3 187	15.6	5 579	15.0
	The suburbs or outskirts of a big city	1 712	10.2	1 904	9.3	3 616	9.7
	A large town	2 355	14.1	2 947	14.4	5 302	14.2
	A small town	4 167	24.9	4 913	24.0	9 080	24.4
	A rural area or village	5 364	32.0	6 341	31.0	11 705	31.4
	Not specified	764	4.6	1 174	5.7	1 938	5.2
Household income	The lowest	2 452	14.6	5 780	28.2	8 232	22.1
	Lower	3 500	20.9	5 478	26.8	8 978	24.1
	Moderate	4 195	25.0	3 951	19.3	8 146	21.9
	Higher	3 732	22.3	3 214	15.7	6 946	18.7
	The highest	2 875	17.2	2 043	10.0	4 918	13.2

Notes: *Non-working – unemployed, permanently sick or disabled or homemaker; unweighted data.

Table no. 2

Health characteristics of data sample, selected European countries, age 65+, 2015

Variables	**Categories**	**Men**		**Women**		**Total**	
		n	**%**	**n**	**%**	**n**	**%**
Total		16 754	45.0	20 466	55.0	37 220	100.0
Self-perceived health	Very good	3 330	19.9	3 183	15.6	6 513	17.5
	Good	6 002	35.8	6 810	33.3	12 812	34.4
	Fair	5 186	31.0	7 211	35.2	12 397	33.3
	Poor	2 205	13.2	3 230	15.8	5 435	14.6
	Not specified	31	0.2	32	0.2	63	0.2
Limitation in mobility	Without limits	10 878	64.9	10 432	51.0	21 310	57.3
	Impaired mobility	2 921	17.4	4 779	23.4	7 700	20.7
	Immobility	2 915	17.4	5 209	25.5	8 124	21.8

	Not specified	40	0.2	46	0.2	86	0.2
Limitations in Instrumental Activities of Daily Living (IADL)	Without limitations	14 769	88.2	16 988	83.0	31 757	85.3
	1 limitation	772	4.6	1 463	7.1	2 235	6.0
	2 and more limitations	1 175	7.0	1 971	9.6	3 146	8.5
	Not specified	38	0.2	44	0.2	82	0.2

Notes: Unweighted data.

Quality of life and prevalence of activities

The quality of life of seniors was the lowest in Greece (the mean of CASP-12 score was 30.4 on a scale from 12 to 48), Portugal and Italy, but the percentage of seniors with low quality of life is also high in Czechia and Estonia. The highest mean CASP-12 score was among seniors in Denmark (41.3) and Switzerland (40.6), where most respondents with high quality of life live (*Table no. 3*).

Table no. 3

Distribution of CASP-12 score values in selected European countries, age 65+, both sexes, 2015

Country	Quality of life		Mean	CI 95%	
	Low	High		Lower bound	Upper bound
Denmark	33.2%	66.8%	41.28	41.05	41.51
Switzerland	37.1%	62.9%	40.62	40.38	40.85
Luxembourg	42.6%	57.4%	39.74	39.32	40.16
Germany	50.1%	49.9%	39.18	38.96	39.41
Austria	50.4%	49.6%	39.33	39.08	39.58
Sweden	50.9%	49.1%	39.18	38.98	39.38
Belgium	57.4%	42.6%	38.22	37.99	38.44
Slovenia	62.8%	37.2%	37.33	37.07	37.58
France	64.0%	36.0%	37.31	37.04	37.58
Croatia	74.7%	25.3%	34.88	34.49	35.27
Poland	76.5 %	23.5 %	34.57	34.10	35.03
Spain	77.5 %	22.5 %	35.05	34.82	35.28
Italy	79.3 %	20.7 %	34.11	33.86	34.35
Czechia	79.8 %	20.2 %	35.26	35.06	35.46
Estonia	80.7 %	19.3 %	34.23	34.00	34.46
Portugal	88.2 %	11.8 %	32.74	32.33	33.15
Greece	94.7 %	5.3 %	30.44	30.23	30.66
Total	**66.4 %**	**33.6 %**	**36.52**	**36.45**	**36.59**

Notes: Percentage of respondents having a high quality of life (CASP score >39); unweighted data.

The most popular activity across Europe was reading, according to the declaration of almost 61% of European elderly involved in the survey. In contrast, seniors were the least active in citizen initiative (4.6%). The highest prevalence was

found in the case of reading books, magazines or newspapers among seniors from Sweden (92.6%). On the other hand, the lowest prevalence was found in the case of education among seniors from Croatia (0.6%).

Table no. 4

Prevalence of leisure and social activities in selected European countries, age 65+, both sexes, 2015

Leisure and social activities		Max		Min		Europe
		Value	Country	Value	Country	
Social activities	Volunteering	31.7%	Denmark	2.2%	Poland	12.9%
	Club	57.4%	Denmark	3.4%	Poland	19.3%
	Citizen initiative	**11.3%**	Sweden	2.7%	Italy	4.6%
	Games	46.4%	Switzerland	6.2%	Poland	24.3%
Individual activities	Education	15.3%	Sweden	**0.6%**	Croatia	**4.5%**
	Reading	**92.6%**	Sweden	**39.8%**	Italy	**60.8%**
	Puzzles	64.0%	Czechia	10.8%	Greece	32.0%
	Internet	70.7%	Denmark	8.7%	Poland	25.0%
Care activities for loved ones	Care of grandchildren	47.1%	Sweden	26.9%	Spain	31.8%
	Help to others	41.0%	Denmark	5.3%	Spain	16.5%
	Care in the household	12.5%	Portugal	4.7%	Switzerland	9.9%

Notes: Max – maximum activity prevalence, Min – minimum activity prevalence, Europe – average prevalence weighted by design weight of wave 6 (SHARE), bold figures are minimum and maximum prevalences across all activities.

Multilevel analysis: quality of life and leisure and social activities

Participation in social and individual activities proved to be a protective factor for a high quality of life. Seniors' involvement in 8 out of 11 activities was associated with high quality of life (*Table no. 5*). On the contrary, care activities for loved ones did not increase the quality of life. Not providing personal care assistance to members of the same household (OR = 1.56), reading books, magazines, or newspapers (OR = 1.52), and participating in voluntary or charity work (OR = 1.36) are associated the most with a high quality of life. The odds ratios of active versus inactive seniors in an educational or training course (OR = 1.15; CI 95%), using the Internet (OR = 1.16), and solving crosswords, number puzzles or sudoku (OR = 1.17) to have a high quality of life differed the least. The relationship between caring for grandchildren, providing help to people from another household and a high quality of life was not statistically significant.

Table no. 5

Relationship between participation in leisure and social activities and high quality of life of elderly in Europe, adjusted multilevel binary logistic regression models, 2015

Leisure and social activities		**OR**	**CI 95 %**	
Social activities	Volunteering	**1.36**	1.26	1.46
	Club	**1.27**	1.19	1.35
	Citizen initiative	**1.21**	1.08	1.34
	Games	**1.21**	1.14	1.28
Individual activities	Education	**1.15**	1.03	1.28
	Reading	**1.52**	1.41	1.64
	Puzzles	**1.17**	1.11	1.25
	Internet	**1.16**	1.09	1.24
Care activities for loved ones	Care of grandchildren	1.05	0.97	1.14
	Help to others	0.98	0.92	1.04
	Not providing care in the household	**1.56**	1.39	1.75

Notes: OR – odds ratio, CI 95 % - confidence interval 95 %, statistically significant values are bold ($p < 0.05$). Controlled for socio-economic, demographic and health characteristics, reference categories are inactive individuals except activity of care in the household (active ones), 11 models.

For all 11 multilevel models considering individual activities, the random effects of country were significant. The estimated values in this modelling use the logarithm of the odds ratio (log odds), which are just odds converted to a scale from minus infinity to plus infinity and 0 is nonsignificant for log odds, same as for odds. The higher the odds, the higher the log odds (Norton and Dowd 2018). The estimate of the parameter value was the highest for the model that included no personal care assistance to a household member – 0.79. The lowest value of the estimated parameter was obtained for the model with reading activity (0.67). In the model with reading, the lowest percentage of variance was explained by variability between countries – 16.84%. The lower the value of the Akaike and Bayesian information criteria, the more variance is explained by it. The lowest values of the information criteria were found in the model for the activity of caring for grandchildren. This model had the second-highest intraclass correlation coefficient (ICC) of 18.51%. The second lowest value of the information criteria was found in the model for not helping with personal care for people from the same household. The ICC of 19.30% was also the highest among all models. The percentage of variance attributed to country variation is 17−19% (the values of the ICC). The impact of participation in activities on quality of life is influenced by the country where people live.

Table no. 6

Relationship between participation in leisure and social activities and high quality of life of elderly in Europe, estimates of random parameters and total effects of multilevel modelling, 2015

Models	Country			ICC	AIC	BIC
	Estimate	CI 95 %				
Volunteering	**0.71**	0.35	1.43	**17.70%**	144 675.1	144 683.4
Club	**0.70**	0.35	1.41	**17.51%**	144 630.4	144 638.7
Citizen initiative	**0.74**	0.37	1.48	**18.28%**	144 636.2	144 644.6
Games	**0.71**	0.35	1.44	**17.81%**	144 655.8	144 664.1
Education	**0.73**	0.36	1.47	**18.19%**	144 618.4	144 626.7
Reading	**0.67**	0.33	1.34	**16.84%**	144 888.6	144 896.9
Puzzles	**0.71**	0.35	1.43	**17.77%**	144 684.7	144 693.0
Internet	**0.71**	0.35	1.42	**17.68%**	151 725.1	151 733.4
Care of grandchildren	**0.75**	0.37	1.52	**18.51%**	83 906.7	83 914.5
Help to others	**0.74**	0.37	1.49	**18.32%**	151 739.5	151 747.9
Not providing care in the household	**0.79**	0.39	1.59	**19.30%**	115 255.6	115 263.7

Notes: CI 95% - confidence interval 95 %, statistically significant values are bold (p <0,05), ICC – Intraclass correlation coefficient, AIC – Akaike information criterion, BIC – Bayes information criterion, 11 models.

DISCUSSION

Quality of life and activities

The quality of life of older adults is not equally distributed across European countries (Lestari *et al.* 2021), as it can be observed in this article. The differences between countries in the preference for certain activities that seniors did in their free time were found as assumed (Singleton *et al.* 1993, EUROSTAT 2020, Lee *et al.* 2014). The largest prevalence difference was found for internet use, where the highest prevalence was among seniors in Denmark (70.7%), while it was only 8.7% among those from Greece. According to previous research (Jungblut and Anderson 2019), there was an expectation that the impact of participation in activities would also vary across countries.

The impact of leisure and social activities on the quality of life

Involvement in leisure and social activities promotes the meaning of life and independence, and strengthens social roles and bonds, which are all related to greater health and quality of life (Park and Byers-Connon 2012). In the comparison of the impact of social, individual activities, and care activities for loved ones on the quality of life, there were no completely clear results. It is possible to state that involvement in selected individual and social activities was associated with a high quality of life. These findings are in line with previous studies on leisure and social activities (Lee *et al.* 2014; Vozikaki *et al.* 2017; Lestari *et al.* 2021; Conde-Sala *et al.* 2017; Park and Byers-Connon 2012; Čepelka 2021). The strongest associations were found between the activity of reading books, magazines or newspapers and doing voluntary or charity work. In the case of volunteering, our findings also concur with previous analysis of dynamics between two waves of survey, taking up volunteering leads to an increase in the quality of life (Siegrist and Wahrendorf 2009). The results of the analysis of individual and social activities are consistent with the theory of activity, and the concept of active aging.

The analysis of care activities for loved ones and quality of life showed no evidence of an association of some of these activities with a high quality of life. However, not providing personal care or assistance to members of the same household was a protective factor for a high quality of life. This finding might not be surprising, as in a previously published study (Siegrist and Wahrendorf 2009) that was also using data from earlier waves of the SHARE study, renouncing care for sick and disabled adult was associated with an increase in the quality of life. Assisting someone with personal care is challenging, physical and mental strength is required, especially when a caregiver is either an older adult, or someone experiencing some health-related limitations or both. As already stated, the quality of life and well-being is an important part of a holistic approach to overall health, and older adults providing personal care to someone in the household are at risk. The social and healthcare policymakers should focus on this population of older caregivers, and support them in experiencing a better quality of life.

In the case of caring for grandchildren, the association with the high quality of life was weak and not statistically significant, which might be quite unexpected. It might depend on the country where the grandparent lives. In countries where grandparent obligations are high, looking after grandchildren is associated with a high quality of life (Neuberger and Haberkern 2014).

Older adults who help others outside the household had almost the same odds of experiencing a high quality of life as non-helping individuals. According to earlier published results, the association between giving help to others outside the household and quality of life was also not consistent (Siegrist and Wahrendorf 2009).

Results of the analysis of the relationship between care activities for loved ones and quality of life contradict the findings of the previous study, where caregiving activities were found as a protective factor of the quality of life (Conde-Sala *et al.*

2017). On the other hand, receiving instrumental support was a negative factor in the quality of life, and providing instrumental support had a positive association only among older adults over 75 (Lestari *et al.* 2021). It seems that caregiving activities need more detailed examination.

Social welfare

Regardless of the social and leisure activity considered in the models, it was found that 17-19% of the variance in the quality of life of older individuals was explained by the variability between countries. It can be stated that the impact of activities on the quality of life of seniors is influenced by the country in which individuals live. The cross-country differences in the quality of life among older adults might be the outcome of cultural, political, healthcare, social, economic, and other factors. Especially in social engagement, the strength of association with the quality of life varies across European countries, stronger in the South and weaker in the North (Lestari *et al.* 2021).

The highest share of variance explained by variability between countries (the highest ICC in multilevel analysis with a country as a random effect) was for the activity of not helping people from the same household with personal care, and the least for reading books, magazines or newspapers. The impact of caregiving on the quality of life might vary across countries, due to different social welfare, i.e. how the state supports caregivers, whether there are any other available options for people who need care (professional home care services, etc.), as in the case of volunteering, where the level of engagement is influenced by welfare states, and the extent to which the state substitutes the role of volunteering (Okulicz-Kozaryn and Morawski 2020). The differences in using formal care services across EU member states were already found supporting the line of un/availability of such services (EUROFOUND 2017).

LIMITATIONS

It would be especially useful to obtain data on health characteristics from an objective third-party informant for verification. Cross-sectional data from one wave of The Survey of Health, Ageing and Retirement in Europe was analysed, so the results cannot be interpreted as causal relationships between quality of life and participation in activities, but it will be a good basis for further analysis. The survey has many waves, other methods might be applied to the longitudinal data.

The CASP-12 quality of life indicator may not be entirely suitable for the population of younger (under 65) and, conversely, older (over 75) seniors, because the age range for which the indicator was developed was 65–75. The aging process is very heterogeneous, so this scale may not be suitable, for example, for very sick

and very old individuals, because these people were not the target population. (Borrat-Besson 2018).

Only selected leisure and social activities of seniors were included in the analysis, but it cannot be stated that these selected activities were the only ones that had a positive effect on the quality of life. Therefore, people who engaged in other activities not included in this analysis and were in the inactive group in the performed regression models could have a high quality of life. It was not the intention of this article to cover the entire spectrum of activities that seniors could engage in.

When analysing the impact of activities on quality of life, the frequency with which seniors engage in activities is not considered. The data used includes only information about participation in activities for the last 12 months, except the case of Internet use, where the reference period is of seven days. The level of activity of seniors very likely played a role in terms of the impact of participation in activities on the quality of life, however, for this article, even a one-time activity was sufficient information about a person. Above all, it is considered important that the senior has shown the will to lead an active life by participating in one of the activities at least once.

The high Intraclass correlation coefficient (ICC) in the multilevel analysis suggests that the role of the activities might vary among different populations of elderly across Europe. For confirmation of the impact of activities on the quality of life, country-specific analyses are needed.

CONCLUSIONS

In conclusion, leisure and social activities had a positive effect on the quality of life among people aged 65 or more in selected European countries, except for caregiving activities for loved ones. Reading and not provinding care to household members were the activities that were associated the most with a high quality of life. This is an important finding for social policies, and an important viewpoint for the need to consider supporting the quality of life of older people.

The largest cross-country differences in the impact on the quality of life were found for providing no help with personal care for members of the same household. The different social welfare of the various countries might play an important role.

As the analysis of the relationship between participation in leisure and social activities and quality of life showed variability between countries, further investigation would be appropriate to focus on parameter estimates within individual European countries. Furthermore, it would be beneficial to study the impact of participation in activities on quality of life in multiple waves of the SHARE study, from the perspective of cohorts.

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Scopul acestui articol este acela de a examina calitatea vieții persoanelor cu vârste peste 65 de ani din Europa, în raport cu timpul liber și activitățile sociale.

Au fost utilizate date individuale ale adulților peste 65 de ani din Europa din baza de date SHARE (valul 6, 2015). A fost măsurată relația dintre cele 11 activități selectate, împărțite în activități sociale, individuale și de îngrijire a persoanelor apropiate și calitatea vieții (scorul CASP-12). S-a utilizat regresia logistică cu efect randomizat.

Rezultatele sugerează că există o asociere între adulții în vârstă activi în ceea ce privește timpul liber și activitățile sociale și o înaltă calitate a vieții (CASP-12 39). În cadrul analizei multinivel, opt dintre cele 11 activități s-au dovedit a fi factori favorizanți pentru o înaltă calitate a vieții a persoanelor în vârstă din Europa. Pe de altă parte, activitățile de îngrijire a celor apropiați

nu se asociază cu o înaltă calitate a vieții. A nu acorda îngrijiri pesoanelor din aceeași gospodărie, a citi cărți, reviste și ziare și activitățile de voluntariat și caritabile se asociază cu o bună calitate a vieții. Nivelul ICC (Coeficient de corelație intraclasă), procentul variației, explicat prin variabilitatea dintre țări pentru toate activitățile, a atins între 17% și 19%.

Activitățile de timp liber și sociale, exceptând activitățile de îngrijire pentru cei apropiați, au un efect pozitiv asupra calității vieții persoanelor vârstnice din Europa. Impactul acestor activități asupra calității vieții adulților peste 65 de ani variază între țările din Europa.

***Cuvinte-cheie**: îmbătrânire; calitatea vieții; activități sociale; Europa; SHARE (Sondajul privind Sănătatea, Îmbătrânirea și Pensionarea în Europa).*

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