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Original research article

Elements of the elderly's subjective well-being – An international comparison focusing on the member countries of the Visegrad group

Lajos Hüse *, Éva Huszti, Andrea Toldi, Péter Takács

University of Debrecen, Faculty of Health, Nyíregyháza, Hungary

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ABSTRACT

This paper analyses specified dimensions of physical and mental health activity and the income of the 50 and 50+ populations in Hungary and in the countries participating in the SHARE database. The study provides an overview of emerging changes in the scientific approach to quality of life by analysing the indicators of health status, factors hindering everyday activities, depression and satisfaction with life.

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Introduction

Income and other dimensions as the determinants of the quality of life

Research on quality of life has changed significantly during the last few decades and this can be seen in the transformation of research terminology. In researches and publications the English word “welfare” refers to the material aspect, while well-being refers not only to the financial but also to the dominant qualitative side of life [1, 2]. Recently, studies with the goal of creating a uniform system of methods and calculations measuring the quality of life have multiplied. The Stiglitz report [3] strongly questions how precisely the GDP indicator is able to express the quality of life of modern societies or if what it reveals is of essence. The emphasis has shifted from

“monetary” indicators toward other characteristics of the quality of life, both in the general research of society as well as in research on individual quality of life [4–6]. In addition to the diversity of the approaches, the choice among many possible indicators is a key issue in determining well-being or lack of well-being (poverty) [7–11]. This choice is critical not only due to what and how well-being is measured, but what it can be compared to; and finally this choice becomes the basis for what is to be explained.

Income provides an exact, relatively easily measurable and statistically favourable ratio scale for the definition of a poverty threshold, although it can be characterized by rigidity. The use of a nominal scale to report income data (poor/not poor), results in individuals whose income does not reach the specified limit of “not poor” to still be considered poor. Thus, those who are only a few Euro below that level, and those who are several hundred Euro below it are considered to be in the same category – poor [7, 12].

* **Korespondenční autor:** Lajos Hüse Ph.D., University of Debrecen, Faculty of Health, Sóstói u. 2–4, 4400 Nyíregyháza, Hungary; e-mail: huse.lajos@foh.unideb.hu

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Of course the role and benefit of using only monetary indicators cannot be underestimated. They are perfectly suitable to (1) draw boundaries considered to be relevant in a particular society; and (2) to argue about the boundaries and (3) to assign socio-political tools (e.g. tools that can provide the elements of basic social security to each citizen) to these boundaries. However, in order to be able to define what it “really” means in the life of each individual, how far they are from these boundaries (e.g. average income, poverty line) and what percent, it is not sufficient to base well-being only on monetary calculations and indicators. To accurately assess the individual’s situation (quality of life) in several dimensions of life, the models need to go far beyond monetary frameworks.

Furthermore, research studies have to take into account that the population of developed countries is ageing and the percentage of those who can be considered as elderly is increasing in the overall population. The representation of seniors among the global population is expected to grow over the coming decades as a result of increased average life expectancy and lower birth rates. Life expectancy is increases steadily in OECD countries, rising on average by 3–4 month each year. Women expect to live more than 5 years longer than men [13]. Consensus estimates project that the number of elderly people will reach 2 billion by 2050, representing a third of the global population [14]. Thus it is becoming more and more important to know the sub-population of the elderly and those who are approaching this age group. It is a natural process that the older population has different characteristics in terms of human and social needs. The SHARE project has targeted these minimally explored areas in preparation for the expected economic and health issues of the European Union.

Recently among others, the SPI (Social Progress Index) developed by Michael Green and used in several countries indicates that describing society in modern developed countries using the GDP is not effective. The GDP reflects economic achievement and not the well-being of countries. The SPI examines three dimensions: basic human needs (nutrition, drinking water, shelter and safety), the foundations of well-being (education, information and communication, health, sustainable environment, etc.), opportunities, and chances for individual implementation (personal rights, personal freedom and choice, tolerance and inclusion, access to modern knowledge) [15].

SHARE basics

The acronym SHARE (Survey of Health, Aging and Retirement in Europe) is an international multidisciplinary project that examines many different characteristics of human ageing. The acronym also points to the common usage of research that could be developed from the data collected during Wave 1 through Wave 5. SHARE was launched in 2002 by its founder and coordinator prof. Dr. Axel Börsch-Supan [16]. At the beginning of 2016 more than one hundred and fifty thousand surveys and interviews had been conducted during SHARE Waves 1–5.

The *first* wave of the research took place in 2004 when eleven European countries (Scandinavian countries –

Denmark, Sweden, Central European countries – Austria, France, Germany, Switzerland, Belgium, the Netherlands, Mediterranean countries – Spain, Italy, and Greece) joined forces to initiate the basic data collection. The participants were: Scandinavian countries (Denmark, Sweden), Central European countries (Austria, France, Germany, Switzerland, Belgium, the Netherlands) and Mediterranean countries (Spain, Italy, Greece). At the end of 2004 Israel became the first Middle Eastern country to join. The research was panel-type and multidisciplinary and utilized a computer supported personal interview with a specific set of questions (CAPI; Computer – Aided Personal Interviews) that focused on health, socio-economic and social and family relationships. The SHARE basic questionnaire consists of 20 modules that contain different thematic components providing a broad scope that surveys the elderly population’s health status, their social situation as it changes with aging, as well as changes in their life condition [16]. The majority of the modules were an integral part of the questionnaire for each wave.

The *second* wave took place between 2006 and 2007 with two new participants: the Czech Republic and Poland. An “End of Life” interview completed by the family members of those who had passed away was added to the basic questionnaire. The second wave survey was conducted in Israel in 2009.

The *third* survey wave was conducted between 2008 and 2009 (SHARELIFE, 13 European countries) and differed from the previous surveys by focusing on human life stories and life events.

The *fourth* SHARE survey that returned to the original focus of the research was conducted between 2010 and 2011. Four new participants: Hungary, Estonia, Portugal and Slovenia were included in the study, and as a result data from the countries of Visegrad Group (aside from Slovakia) in the 50+ population is available for comparison with other countries.

In April 2015, the data from the *fifth* wave was published containing the data from fifteen participating countries as Luxemburg was added. However, Hungary and Poland did not participate in this survey.

This study deals with the database of the 4th wave as it is the only one that contains almost all Visegrad countries’ data.

Research on national levels

Similar general Quality of Life (QoL) research is also conducted at other levels than national. In Hungary the TÁRKI Hungarian Household Panel (1992–1997) [17], and the Household Monitor (from 1997) [18] research studies offer the possibility to study smaller geographic units. The University of Debrecen’s Faculty of Health has conducted research studies at the city level since 2008. Using a similar methodology to that of the TÁRKI survey, as well as that of other studies, the city level research focuses on the quality relations of human life [19, 20]. Based on the data from these studies a local quality of life index was developed by interpreting the model of Tauhidur Rahman [21, 22]. The city level results have been applied and are still being used by the Social Department of the City Hall. The Nyíregyháza

panel research studies provide the opportunity for age-group analysis as well, which can be used to compare the local (Nyíregyháza) results to the older age group respondents in the SHARE research studies [23].

CERGE-EI [24] (Centre for Economic Research and Graduate Education – Economics Institute) is a joint workplace of Charles University in Prague and the Economics Institute of the Czech Academy of Sciences. The CERGE-EI joined the SHARE group working with the national data.

The Polish team of the SHARE project were recruited from the members of Centre for Economic Analysis (CenEA), Szczecin [25]. The last overview was given by Chłóń-Domińczak [26] and numerous studies were published about the results of SHARE – e.g. Adena's and Myck's [27] analysis, which is the initial point of this study.

International comparison on the dimensions of well-being using the SHARE database

Based on the SHARE database, Adena and Myck [27] analyzed the changes in four dimensions of quality of life in the participating countries that affect the level of poverty and the immediate consequences of poverty. The authors concluded that income poverty is not strongly correlated with physical and mental health or with satisfaction with life, while the same dimension strongly correlates with subjective poverty. For their analysis they developed two dimensions of the state of physical health, symptoms of bad health (SMT) and activities of daily living (ADL), one dimension of mental health: the European Depression Scale (EURO-D), and a dimension of satisfaction with life (UNHAPPY) which is an emphasized question of CASP-12.

Research aims

The purpose of this paper is to carry out further investigations into quality of life. In order to determine the well-being of the Visegrad Countries' 50+ population and how Czech, Hungarian and Polish well-being relates to that of other countries the dimensions used to analyze the third wave [27] were applied to the data of the fourth wave. Thus, the research includes data from 16 European (also EU member) countries.

The main aim of our research group was to examine the AMT, ADL, EURO-D and CASP-12 dimensions of the SHARE research, based mainly on the 16 countries and the three Visegrad countries mentioned above. The study shows a statistical difference between these variables and countries, not only in the factors of subjective well-being but also some financial factors which focus on health.

Material and methods

All countries examined in the study gather data of the Czech Republic, Hungary and Poland as the countries of the Visegrad Group which is involved the 4th wave of the

SHARE project. The four dimensions of quality of life were sorted from the databases – SMT, ADL, EURO-D and CASP-12. The list of questions of these dimensions was collected in the Wave 4 questionnaire of the SHARE survey.

- The SMT dimension is based on 12 symptoms associated with a poor state of health – if there were three or more symptoms the respondent was considered to have a poor health condition (3 + SMT) [27];
- The ADL dimension is based on 13-items reflecting activities of daily life – if there were three or more daily activities that were classified as impaired then the respondent was classified as being hindered in their everyday activities (3 + ADL) [28];
- The EURO-D scale measures depression and is widely applied for the measurement of mental health [29] – if the respondent had four or more features of the 12 item scale the respondent was considered to have poor mental health (4 + EURO-D).
- The CASP-12 dimension of statements about control, autonomy, self-realization, and pleasure were classified as general life perspectives – if the respondent had three or more features of the 12 item scale the respondent was considered to have a negative life perspective (3 + CASP-12) [30]. While developing the variable the same principles were followed that were used by Adena and Myck in the previously mentioned research. The variables' corresponding encoding and transferring into binary form (often = sometimes = rarely = 1; never = 0) resulted in a novel application of CASP-12 dimension.

In the first step of 3 + SMT; 3 + ADL; 4 + EURO-D and 3 + CASP-12 analyses the order of the countries was determined. The ratios are presented in the form of a diagram. The research compared which of the most frequently reported items of variables SMT, ADL, EURO-D, and CASP-12 are in the 3 Visegrad countries.

For a more accurate detection of the differences among the countries the ANOVA and Kruskal-Wallis test were performed. The results are presented in the form of a node diagram. Node represents countries; the connecting lines indicate which countries do not differ statistically. Countries that are not connected on the node diagram are statistically significantly different.

ANOVA and Kruskal-Wallis analyses were also used to analyse the Visegrad countries separately. No node diagram was prepared here.

The final part of the chapter introduced the results and analysed how close the relationship was among the examined variables. The Pearson correlation coefficient has been determined. In addition to the original indicators like the health aspects of the classical, economics-based quality of life approach, total health expenditure, percentage of GDP, public health expenditure, percentage of GDP and the expenditure on pharmaceuticals, percentage of GDP for each country (for the 2013 year) has been involved as well. These latter aspects may affect the older age group particularly sensitively.

Results

Symptoms of bad health – SMT

The 50+ Hungarian population has the poorest self-perceived health (3 + SMT) compared to all the other countries. Having three or more health problems affects 42.1% of the 50+ Hungarian age group. Hungary even stands out from the group of other countries having high

values: Poland, Estonia, Portugal and the Czech Republic (Chart 1).

In the dimension of physical health, Switzerland, the Netherlands, Denmark, Sweden and Austria had the best health status, with less than 25% of the respondents listing at least three health problems.

The most frequently reported items of SMT in the three Visegrad countries. The items do not differ, only the orders are different (Table 1).

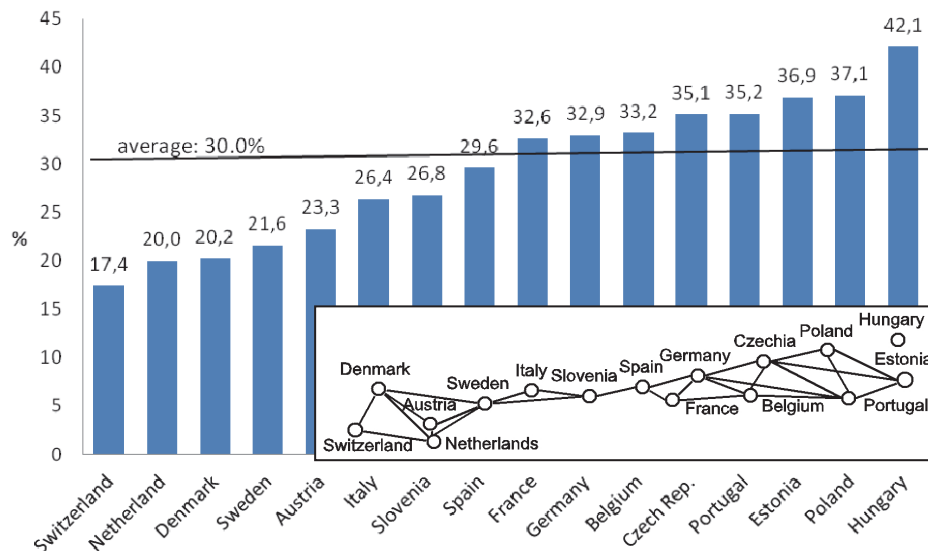


Chart 1 – Subjective health status (3 + SMT) and ANOVA node diagram (SMT)

Table 1 – Most frequently reported items of SMT

	Czech Republic	Hungary	Poland
1.	Pain in the back, in the knees, in the hip or pain in other joints (62.3%)	Pain in the back, in the knees, in the hip or pain in other joints (59.0%)	Pain in the back, in the knees, in the hip or pain in other joints (61.0%)
2.	Fatigue (31.6%)	Fatigue (39.6%)	Sleeping problems (31.1%)
3.	Sleeping problems (25.1%)	Sleeping problems (27.8%)	Fatigue (28.3%)

Examining the original national SMT average value, similar differences can be seen as in the 3+SMT sequence – only the order of some countries is changed.

ANOVA, which compares the national averages statistically, the Bonferroni post hoc test that follows it and the Kruskal-Wallis test show an interesting picture. While examining the 16 countries, both the ANOVA and the Kruskal-Wallis tests show significant differences – [$F(15.58,104) = 121.459, p = 0.000; \chi^2(15, N = 58,120) = 1764.547, p = 0.000$].

The results of the post hoc test showing the similarities and differences of the given countries can be seen on the diagram in Chart 1. Each country is indicated with nodes on the diagram. Lines connect the countries that are not different statistically. The diagram shows that Hungary is completely separated from the other countries with significantly higher national SMT average values. The diagram shows that two big groups of countries can be formed. The Slovenia/Spain connection can be

regarded as a borderline. For the Visegrad countries too, significant difference can be seen in the SMT average values [$F(2.10,856) = 32.932, p = 0.000; \chi^2(2, N = 10,859) = 28.668, p = 0.000$].

According to the post hoc analysis, the Czech Republic and Poland do not differ from each other significantly. However, Hungary showed a higher SMT average value than the other two Visegrad countries, which could be expected on the basis of the study involving 16 countries.

Limitations of daily activity – ADL

In the dimension of everyday activities inhibited (3 + ADL), the Polish reported the biggest obstacles (12.4%), while the Hungarians are fourth from the bottom (with 10.9% of the respondents hindered by at least three factors in their everyday activity). In this dimension Poland, Spain and Estonia had slightly more problems with daily living than Hungary, while Portugal was a little better. However the

Czech Republic, which had poor health status (3 + SMT), was much closer to the higher performing countries (7.1%). If Switzerland (with its few problems in the activities in daily living) is not taken into consideration, then the Czech Republic belongs to the leaders. Another Mediterranean country, Spain (that lags behind the EU average in many aspects) belongs to the group of 3 + ADL dimension

that struggles; with many people having problems with activities of daily living.

Just like the 3 + SMT dimension, Switzerland, the Netherlands and Denmark have the best functioning. They are followed by another group of countries: Sweden, France and Slovenia (as the “most western” post-socialist country) with relatively favourable levels of functioning (Chart 2).

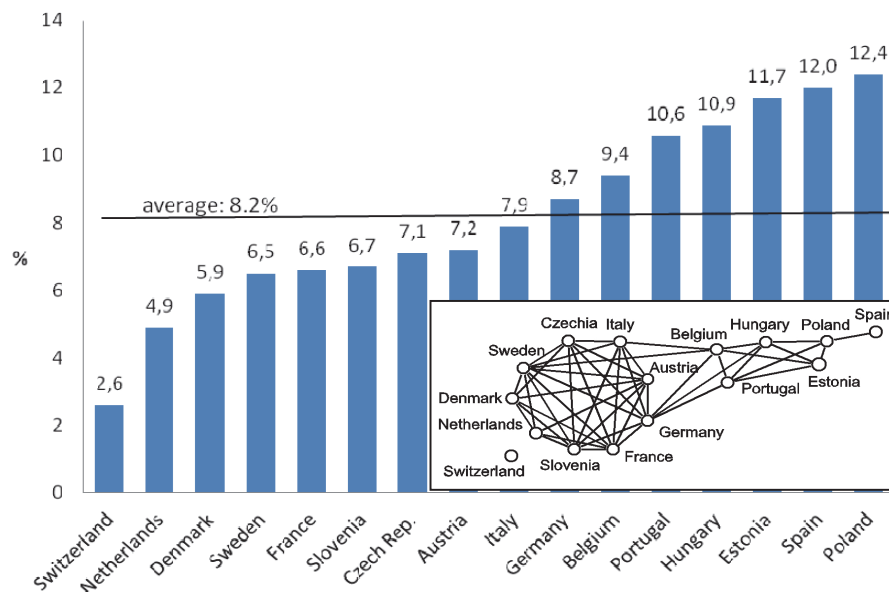


Chart 2 – Activities of daily life (3 + ADL) and ANOVA node diagram (ADL)

The most frequent three items in the sub-sample of Visegrad countries. It can be seen that the three items are the same in Hungary and Poland – with the exception of

their order. For the Czech Republic one item is significantly different, this is “Using a map to figure out how to get around in a strange place” (Table 2).

Table 2 – Most frequently reported items of ADL

	Czech Republic	Hungary	Poland
1.	Doing housework or gardening (13.2%)	Doing housework or gardening (21.1%)	Doing housework or gardening (14.9%)
2.	Using a map to figure out how to get around in a strange place (8.3%)	Shopping for groceries (14.4%)	Dressing up, including putting on shoes and socks (13.1%)
3.	Dressing up, including putting on shoes and socks (6.0%)	Dressing up, including putting on shoes and socks (9.0%)	Shopping for groceries (10.3%)

Similar differences were shown in the original national ADL average values as in the 3 + ADL sequence, only the order of some countries changes.

While examining the 16 countries, both the ANOVA and the Kruskal-Wallis test show significant differences [$F(15, 58,108) = 161.397, p = 0.000; \chi^2(15, N = 58,124) = 790.195, p = 0.000$].

The results of the post hoc test showing the similarities and the differences of the countries can be seen on the node diagram part of Chart 2. The interpretation of the figure is the same as the interpretation of the node diagram introduced in the previous part. Chart 2 illustrates that Switzerland has the lowest ADL average value as shown by the 3 + ADL study. The node diagram shows that nine countries linked very tightly show the same ADL average

value. The remaining six countries separate upwards from these countries. The Czech Republic belongs to group No. 9; Hungary and Poland belong to the lagging countries.

The separate analysis of the Visegrad countries also shows a significant difference in ADL average values [$F(2, 10,858) = 150.649, p = 0.000; \chi^2(2, N = 10,861) = 100.432, p = 0.000$]. According to the post hoc analysis different ADL average values can be experienced for all three countries.

The severity of depression – EURO-D

The level of depression is measured as the respondents mention four symptoms. Estonia, Poland (40.7%) and Portugal is a group of countries which has individuals with higher levels of depression measured on the EURO-D scale

than Hungary (37.3%) and Spain with slightly lower level of depression. By including France, which had approximately the same level of depression as Spain, a group of countries is formed where at least two-thirds of the respondents are depressed (as measured by the EURO-D scale).

The Czech (24.8%), Slovenian and German respondents form a group that is below the average.

Danish respondents reported the fewest symptoms of depression, followed by the Netherlands, Switzerland and

Sweden where less than one-fifth of the respondents are considered to be depressed based on the EURO-D scale. In addition, Austria can also be considered as part of this group as only slightly more than one-fifth of Austrian respondents reported symptoms of depression (Chart 3).

The most frequent three items in the sub-sample. In the case of countries the items are the same; however, their prioritization is different (Table 3).

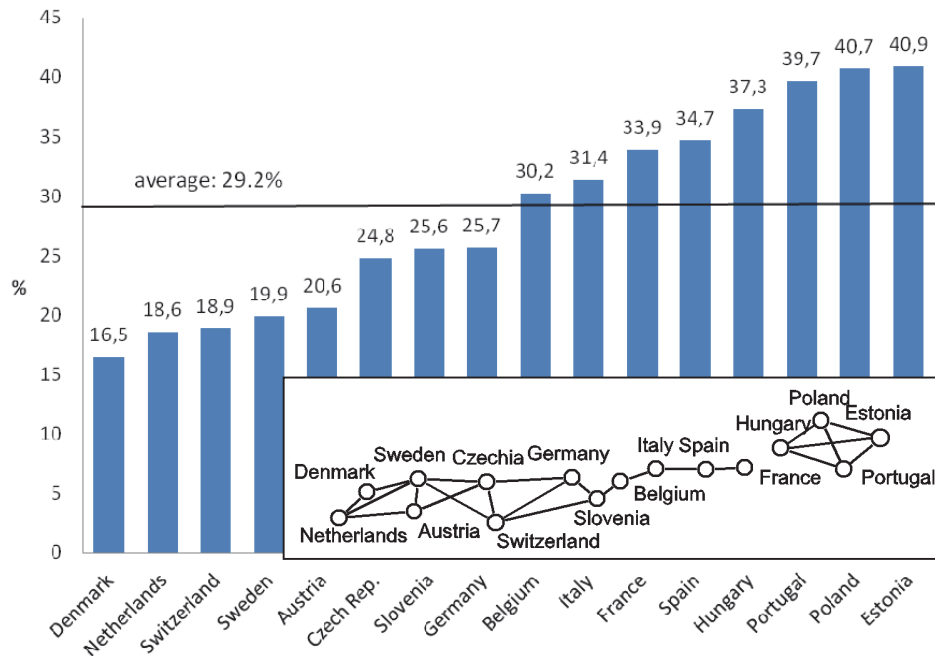


Chart 3 – Depression dimension (4 + EURO-D) and ANOVA node diagram (EURO-D)

Table 3 – Most frequently reported items of EURO-D

	Czech Republic	Hungary	Poland
1.	I experienced sadness or depression during the last month (41.2%)	During the past months I had too little energy to do what I wanted (49.9%)	I experienced sadness or depression during the last month (51.3%)
2.	Recently I have noticed that I have had sleeping difficulties (32.1%)	I experienced sadness or depression during the last month (40.6%)	Recently I have noticed that I have had sleeping difficulties (44.9%)
3.	During the past months I had too little energy to do what I wanted (30.6%)	Recently I have noticed that I have had sleeping difficulties (38.6%)	During the past months I had too little energy to do what I wanted (40.1%)

The comparison of the original national EURO-D average values (ANOVA, Bonferroni post hoc test and Kruskal-Wallis test) showed a significant difference [$F(15, 56,396) = 841.925, p = 0.000; \chi^2(15, N = 56,412) = 2489.008, p = 0.000$].

According to the node diagram of Chart 3, Hungary, Poland, Estonia and Portugal form a separate group with high EURO-D average values. In the case of the other countries the diagram shows a looser, almost chain-like connection and it can be seen from the diagram that the Czech Republic separates from the other two Visegrad countries.

Even the Visegrad countries separately show a significant difference for the EURO-D average values [$F(2, 10,642) = 1454.583, p = 0.000; \chi^2(2, N = 10,645) = 471.887, p = 0.000$]. The post hoc analysis shows significantly

different EURO-D average values in each of the three countries.

General life perspective – CASP-12

The questions in SHARE are appropriate for expanding the research on quality of life. The CASP-12 items focusing on the subjective quality of life of the respondents contain seven positive and five negative statements about their control, autonomy, self-realization, and pleasure. Using the CASP-12, the positive items of the SHARE questionnaire were transformed into negative ones. Although transformation from negative into positive would have involved fewer changes, the authors selected the negative solution because the four dimensions also focus on negative impacts and problems [31].

The three or more factors that reflect a deteriorating general life perspective (Chart 4) are most typical of Hungarian respondents. The Hungarians have a much more negative life perspective (23.7%) compared to the next three countries Portugal, Estonia, and Italy; even though those three countries are far more negative than the averages of the other countries. The other Visegrad countries – the Czech Republic (15.4%) and Poland (11.7%) – have a more positive life perspective than Hungary. However, Poland

is very similar to Hungary in the previous dimension; the Polish denomination is the sample's average.

A negative and deteriorating quality of life is least characteristic in Danish elderly people. Also, only a few respondents from Switzerland, the Netherlands, Sweden and Austria had three or more negative quality of life factors. Similar to the previous findings, the post-socialist and Mediterranean countries were again towards the bottom on this indicator.

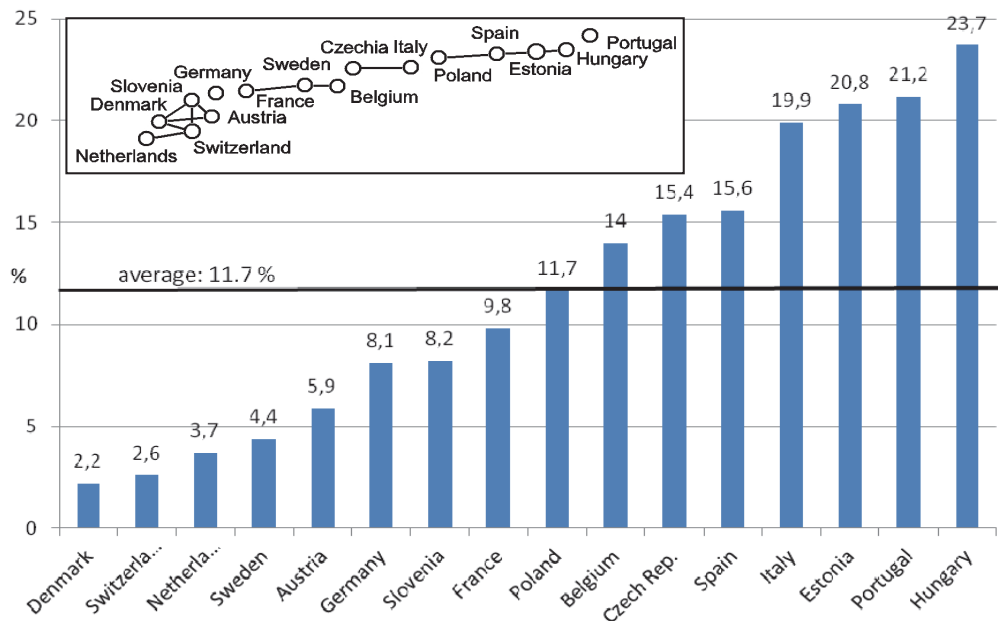


Chart 4 – General quality of life (3 + CASP-12) and ANOVA node diagram (CASP-12)

The most frequent three items in the sub-sample. The items of the countries are almost identical. In Poland and the Czech Republic the items are the same, however their

order is different. In Hungary, instead of “My age hinders me from doing things” the following item is used: “I do not feel that my life is full of opportunities” (Table 4).

Table 4 – Most frequently reported items of CASP-12

	Czech Republic	Hungary	Poland
1.	Lack of money hinders what I want to do (82.7%)	Lack of money hinders what I want to do (85.8%)	Lack of money hinders what I want to do (85.8%)
2.	I don't feel that my future can be positive (81.1%)	I do not feel that my life is full of opportunities (80.5%)	My age hinders me from doing things (85.1%)
3.	My age hinders me from doing things (80.3%)	I don't feel that my future can be positive (78.6%)	I don't feel that my future can be positive (73.5%)

Overall, it can be seen that Hungary and partly Poland belong to the group of countries that have the poorest quality of life using these indicators. Aside from the SMT values Czech Republic is more akin to the German-speaking countries and Slovenia than other Visegrad countries described based on the SHARE project.

Looking at the original national CASP-12 average values, there are significant differences among the countries. In a similar way to the other variables, ANOVA, Bonferroni post hoc test and Kruskal-Wallis test were applied here too. The national averages differ significantly [$F(15, 54,877) =$

$5106.278, p = 0.000; \chi^2(15, N = 54,893) = 7279.536, p = 0.000]$.

The post hoc test revealed the most interesting picture. The node diagram shows that according to the CASP-12, the 16 countries essentially divide into six parts (Chart 4.). Germany and Portugal are separated. The other countries form groups containing two, three and five countries. It can be seen that CASP-12 stretches the national averages very much.

In the case of the Visegrad countries a significant difference can be seen in the CASP-12 average values

[$F(2, 10,355) = 1068.286, p = 0.000; \chi^2(2, N = 10,358) = 235.021, p = 0.000$]. The post hoc analysis showed significantly different CASP-12 averages in all three countries.

Correlations of subjective and economic indexes of well-being

Since the Stiglitz report [3], the emphasis has shifted from monetary or economic indicators towards subjective indexes of the quality of life. The two approaches are not necessarily mutually exclusive; in fact the two – subjective

and economic – aspects resulted in a very thorough analysis. The study attempts to examine the similarities and differences of the knowledge that can be obtained along the dimensions of the two approaches.

The analysis of the relationship of the shown SHARE dimensions to each other is possible with the determination of the Pearson correlation coefficient. In addition, the countries' total health expenditure, percentage of GDP, public health expenditure, percentage of GDP and the expenditure on pharmaceuticals, and the percentage of GDP indicators from the year 2013 were also added. Table 5 contains the results.

Table 5 – Pearson correlation coefficients of subjective and economic indexes of well-being

	Smt	Adl	Eurod	Casp	The GDP	Phe GDP	Eop GDP
Smt	1	0.800^a	0.843^a	0.805^a	-0.694^a	-0.693^a	0.630^a
Adl	0.800 ^a	1	0.858^a	0.740^a	-0.691^a	-0.680^a	0.394
Eurod	0.843 ^a	0.858 ^a	1	0.833^a	-0.687^a	-0.748^a	0.533^b
Casp	0.805 ^a	0.740 ^a	0.833 ^a	1	-0.701^a	-0.726^a	0.593^b
The GDP	-0.694 ^a	-0.691 ^a	-0.687 ^a	-0.701 ^a	1	0.923 ^a	-0.313
Phe GDP	-0.693 ^a	-0.680 ^a	-0.748 ^a	-0.726 ^a	0.923 ^a	1	-0.478
Eop GDP	0.630 ^a	0.394	0.533 ^b	0.593 ^b	-0.313	-0.478	1

The GDP = total health expenditure, % of GDP.

Phe GDP = public health expenditure, % of GDP.

Eop GDP = expenditure on pharmaceuticals, % of GDP.

Source of GDP% data: <http://www.compareyourcountry.org>

^a Correlation is significant at the 0.01 level (2-tailed).

^b Correlation is significant at the 0.05 level (2-tailed).

The correlation coefficients for the examined indicators (SMT, ADL, EURO-D, and CASP-12) are positive. With two exceptions they are over 0.8, indicating a close relationship.

The correlation of the GDP-based indicators is negative in two cases (total health expenditure and public health expenditure). This is understandable since the growing SMT, ADL, EURO-D, CASP-12 values indicate an increasing negative trend. The GDP-ratio health expenditure grows conversely – the negative quality of life indicator value decreases. On this basis, the positive correlation of the expenditure on pharmaceuticals indicator can also be understood, as the negative quality of life and the health care situation apparently show higher drug expenditures.

Discussion and conclusion

Context of the dimension of well-being

Analysis among the examined SHARE dimensions showed the expected significant differences regarding the national average values. These results confirm the earlier results of Adena and Myck [27]. The ANOVA post hoc analysis and the results of the correlation analysis, which appear on the node diagram and correlation table, should be regarded as food for thought. It provides a basis for the comparison of SHARE dimensions of the countries and for forming country groups.

From among the node diagram the figure of CASP-12 stands out, as this dimension shows a completely different behaviour than the rest of the consolidated variables. However, the correlation examinations raise awareness that the CASP-12 indicator cannot be simply ignored, because there is a close connection with the other dimensions. It further emphasizes the fact that has already been indicated by [32], that the place and role of CASP-12 among the SHARE indicators should be clarified.

It can be seen by reviewing all the data that the group of countries reporting the best quality of life and the group of countries reporting the worst quality of life basically remain the same across all dimensions. The worst performing group consists of a post-socialist and Mediterranean “conglomerate”, containing Estonia, Poland, Hungary, Portugal and Spain. The respondents reporting the best quality of life are from the Netherlands, Denmark, Sweden, Switzerland and Austria.

Unfortunately, the wave of the SHARE data collection does not include all of the European Union countries. However, due to the relative stability of the two “best” and “worst” groups it can be postulated that for these “best” and “worst” performing countries it is not only the dimension of well-being that is common, but other important common factors may be found.

Several common factors can be found for the groups. History is an important determinant, but further research is planned to evaluate these effects.

From a national point of view, those dimensions can be considered to be particularly significant where the percentage is particularly high, from a quarter to a third (3 + SMT and 4 + EURO-D). These dimensions not only reflect a relative bad position compared to the other participating countries, but also a problem affecting nearly half of the age group within the country.

These conditions do not develop suddenly, but seem to be a result of gradually worsening the negative results of the two dimensions. They affect not only the age groups included in SHARE research, but to a lesser extent – growing in direct proportion of their age – the younger age groups as well. Thus the data reveals that the partly active but more significantly inactive citizens live their lives confined between limits. Additionally, individuals in families (spouses, life partners, adult children) living with the person involved also suffer from the burden that a person's health and/or mental problems cause.

Focusing on the Visegrad countries, of the three countries Hungary and Poland show a closer similarity regarding the examined dimensions. The Czech Republic has significantly better indicators in several points (ADL, EURO-D, CASP-12) than the other two countries.

One explanation could be that the Czech Republic has a standard care, while Poland and Hungary are transition-type countries [33]; however, clarification of this requires further investigation. On the other hand it is clear that an extremely large number of people are affected by mental and other health problems in Hungary. The premature deterioration of the health of the middle-age population – primarily middle-aged men – is so high that the Hungarian data is much more similar to the Ukrainian or Russian data than to the Polish, Slovakian or Czech data. More Hungarian men in the 50–64 age group now die annually than in 1930 [34].

The connection between income situation and quality of life

In addition to income, other indicators of quality of life have to be taken into consideration. If the other indicators point to a poor quality of life but there is a relatively good financial indicator, then when a bad financial situation occurs, it creates an even more serious problem since all indicators are now “bad”. Considering that indicators shown in each of the four dimensions of the quality of life are poor, the elderly age groups in Hungary are in a serious situation, and the Polish situation is the same as Polish seniors are at high risk in three dimensions. The data shows the limitations and the deterioration of well-being of a significant, partly active, but mostly inactive age group that is living from transfers.

At the same time, the economic crisis of recent years had an effect on health expenditures. The short-term impact of the economic crises resulted in a reduction in health expenditures, and in the long-term a narrowing of the funding frameworks and the deterioration of the health status of society. This can also be seen in the negative form of the structures and expenditures invested in health care. As OECD data shows, out-of-pocket spending remains a barrier to accessing care. On average across OECD

countries, about 20% of health spending is paid directly by patients, although all OECD countries have universal health coverage. For this reason, low-income households are four to six times more likely to report unmet needs for medical and dental care for financial or other reasons compared to those with high income [13].

The state is reducing the support of the big health care system and placing more responsibility on individuals and families. The decrease in health care expenditure and also the increase of direct cash expenditures negatively influence access to health care, particularly for the vulnerable groups of society who have low incomes [35]. The health expenditure as a share of GDP was below the average of OECD countries. The Slovak Republic (7.6%; rank 27), Hungary (7.4%; rank 29), the Czech Republic (7.1%; rank 31) and Poland (6.4%; rank 36) seem to be a comparable group, although the Hungarians have a very high proportion of private (out-of-pocket) spending compared to the other Visegrad countries [13].

Conflict of interest

The authors confirm that this manuscript has not been published elsewhere and it is not under consideration by any other journal. The authors have no conflicts of interest to declare.

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