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Survey of Health Status and Quality of Life of the Elderly in Poland and Croatia

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Aim. To describe health status and the quality of life among the Polish and Croatian elderly and explore differences between the countries, as well as patterns of gender and age differences.

Methods. Randomly chosen elderly aged 65-85 from Krakow (Poland) and from Zagreb and some smaller towns in Croatia were interviewed on health (self-rated health, physical functioning, mental health, perceived bodily pain, hearing and vision ability, morbidity, functional status, loneliness and depression) and general quality of life. The database (528 and 286 interviews with the Polish and Croatian elderly, respectively) was analyzed using the Mann-Whitney U test, Kruskal-Wallis H test, and general linear model procedure.

Results. Significant differences in favor of the Croatian elderly were found in self-rated health and perceived bodily pain (controlled for age, gender, education, and morbidity). The Polish elderly experienced fewer depressive symptoms and reported better vision ability and quality of life in comparison with the Croatian elderly. With some exceptions (hearing and vision ability) the collected data confirmed better health status and quality of life in men in comparison with women in both countries. Significant trends were found in deterioration of health with age. However, the pattern of deteriorating health with age was inconsistent, and more visible among women than among men. Health status results in Poland and Croatia were generally lower in comparison with elderly populations in Western Europe.

Conclusion. The findings suggest that the broadest possible panel of instruments should be used to describe health within each country and to compare health between the countries. Poor health and quality of life produce a considerable task for public health bodies in Poland and Croatia to equal the standards of the European Union.

Key words: *aged; aged, 80 and over; Croatia; health status; quality of life; Poland*

Together with the development of medicine the percentage of elderly people in many countries is increasing (1,2). The aging process in West European countries is generally more advanced than it is in the Central Europe. Despite the smaller percentage of the elderly in Central European countries and slower increase in some periods of development, it is predicted that the dynamic of aging will become considerable in these countries (3,4). The elderly population (65 years and older) constituted about 12% of the Polish population in 1999 and it is expected that it will reach more than 17% in 2020 (3). In Croatia the elderly constituted over 13% in 1998 and the prognosis is they will constitute over 20% of the population in 2020 (4).

However, the aging process doesn't imply only longer life; it is also a matter of good overall functioning, meaning healthy life. With the growing number of the elderly we have to pay more attention to this frail part of the population and find solutions to enable older people to contribute to the welfare of the societies they live in (5). This is especially important in the region of postcommunist countries: Poland and Croatia, especially if we take into consideration their accession to the European Union and the globalization process. Central European countries have been characterized by dramatic socio-economic changes in the 1990s, which have led to changes important for the health of the population. The Polish elderly have been one of the groups affected greatly by these changes. Many social polices were not implemented due to the economic crisis, exaggerated priority was given to the poorest groups of the society (e.g. the unemployed), thus neglecting older people, and many were forced by this situation to take an early retire-

ment (6). Delays and misconceptions concerning health care reform had a very strong impact on the health of the older part of the population. Moreover, the ability of the elderly to adapt to the changing conditions was limited, and they usually waited passively for services (6). The war in Croatia additionally worsened the psychosocial conditions of the elderly (7). Such conditions make health comparisons between the countries particularly difficult.

There is no single general measure of health status that would prove valid and reliable enough for international comparison. Research institutes compare countries by means of measures such as life expectancy, specific cause morbidity, mortality, or self-rated health. These measures, however, do not pinpoint all dimensions of health and do not necessarily reveal the general health status or the needs of the elderly. The first three of these measures are objective and medical ways of measuring health. However, people's health, especially the health of the elderly, cannot be described only objectively. Very often a more precise view on health status can be obtained by subjective measures, and the assessment of quality of life is by definition a subjective measure. Some researchers view self-rated health as an interesting and promising general health status measure (information is available because national statistical offices collect it); however, the question of its international comparison remains open (8).

This study uses the same measures and highly comparable methodology in assessing health status and the quality of life in the two Central European countries. There is a lack of reports describing highly comparable data concerning different dimensions of health and the quality of life among the elderly in Poland and Croatia. Even though these countries are undergoing similar transitional changes, which have a huge impact on the health of the elderly, we expected to find some differences in the specific measures, since geographical (Poland at the north, Croatia at the south), cultural and other features of these countries may differentiate the health status of their populations. Exploring differentiated measures in comparison will allow for a precise and sensitive examination of the countries' specific situations.

Health surveys and medical registration of physical complaints support the hypothesis that the gender differences are generally unfavorable for women, particularly when subjective measures are used (9,10). As Nathanson puts it tersely: "Women get sick and men die" (11). The worsening of different dimensions of health with age is also generally observed (12,13). However, the research shows that depending on population characteristics and the health measure used, it may happen that older age groups assess their health better than younger ones (13,14). Two major hypotheses address this issue: mortality artifact – only the healthy survive, and sample selection – people from older age groups are more often institutionalized and therefore not chosen for the study sample (15). Since gender and age differences have a great impact on health, it is also interesting to investigate the differences between gender and age groups of elderly people in Poland and Croatia.

Methods

Sample – Procedure and Respondents

Data for the present study were collected in a cross-sectional study conducted in Krakow (about 750,000 inhabitants), a city located in the south of Poland, in Zagreb (capital of Croatia, about 770,000 inhabitants) and some smaller towns in the south- and north-east of Croatia. This research project is part of a broader comparative international study on "Health status and quality of life of the elderly in Central European countries and the Netherlands." The larger part of the questionnaire used in this study was originally in English, and a small part was originally in Dutch. The questionnaire was translated by 2 independent translators and adapted to each country's conditions. Pilot studies were done to evaluate the validity and reliability, and proved that the scales used are adequate for Polish and Croatian circumstances.

A sample of 1,000 community-dwelling elderly (age 65-85) was randomly chosen from the population of residents of Krakow in 1998. Interviews were conducted face-to-face in respondents' households by 2 trained interviewers (a physician and a sociologist) between May 1999 and April 2001. Interviews were conducted with 552 out of the 1,000 chosen elderly. The remaining 472 persons were lost due to the following reasons: death between the time of sampling and the date of interview (9.6% of the whole sampled group), refusal (18.2%), change of the address (8.8%), and the lack of contact in spite of the repeated attempts to contact them (8.2%). Additional 23 respondents were excluded from this analysis because of the low score on the cognitive function test (Mini Mental State Examination, ref. 16) and failure to complete the whole questionnaire. The database consists of 528 interviews with respondents aged 65-85 from the city of Krakow. Women constituted about 60% of our sample; the mean age was 72.7 years (standard deviation (SD) = 4.96). The chosen group can be viewed as representative of the Polish urban elderly with regard to age and gender (17).

The Croatian survey covered a population of 500 inhabitants aged 65 and older. The selected population group consisted of patients registered by general practitioners (GP) in 52 GP practices; the majority of inhabitants of Croatia are registered by the GPs. The study was conducted from September 1999 to July 2000. About 15% of the patients, who were asked to be interviewed, refused to participate. The patients were interviewed in their flats face to face by trained interviewers (medical doctors or 6th year medical students) or in the GP's practice or waiting rooms. For the purpose of a comparative analysis, 214 out of 500 interviews were excluded; 19 because of the respondent's poor cognitive status, 21 because the respondents were older than the research plan assumed, and 174 due to financial difficulties restricting the completion of the questionnaire, and thus producing a shorter version unsuitable for the comparison. The average age of the Croatian sample (286 interviews in the database) was 71.4 years (SD = 4.87), and about 66% of the elderly were women. This corresponds with the demographic characteristics of the Croatian population in 2000 (4).

Measurements

Self-rated health was assessed with one question derived from SF-20 (18,19), where respondents were asked to evaluate their health as poor, average, good, very good, or excellent (scores from 1 to 5 respectively). Global indications for physical health, mental health and perceived bodily pain were measured with parts of SF-20. The scores ranged from 0 to 100; higher meaning fewer limitations in physical functioning, better mental health and higher amount of perceived bodily pain respectively (20). Organization of Economic Cooperation and Development Hearing and Vision Ability scales (21) were used to evaluate respondents' problems with hearing and vision ability; ranging from 2 to 8, higher scores meaning more limitations in hearing or vision. Morbidity was counted by the number of chronic conditions each respondent reported, using the Dutch Central Office for Statistics (CBS) chronic conditions scale, consisting of a list of 19 possible complaints (22). Functional status was evaluated us-

ing GARS (Groningen Activity Restriction Scale), with scores ranged from 18 to 72, the highest score meaning the maximum amount of restrictions related to overall functional status (23). Feelings of loneliness were measured using the Loneliness Scale of De Jong-Gierveld (24), ranging from 0 – no feeling of loneliness to 11 – maximum feeling of loneliness. The level of depressive symptoms was evaluated using a part of the Hospital Anxiety and Depression Scale (HADS-D), from 0-21, higher results meaning more symptoms of depression (25). Quality of life was assessed by Cantril's ladder – respondents were asked to put themselves on one step of the ladder from 0 meaning the worst life one can imagine to 10 meaning the best possible life for each respondent (26).

The study sample was categorized into four groups according to age (65-69; 70-74; 75-79; and 80-85). Educational level was divided into three groups (1 – not finished or finished elementary education; 2 – vocational, secondary level of education; and 3 – post secondary or university level: bachelor's or master's degree).

Statistical Analysis

The database was analyzed using SPSS statistical software package for Windows (version 10.0, SPSS Inc., Chicago, IL, USA); (License: University of Groningen, The Netherlands). Health and quality of life measures among gender and age groups were explored separately in the Polish and Croatian elderly using descriptive analyses. Country differences in indices of health status and quality of life were explored using univariate general linear modeling procedure. The differences in age, gender, and education structure of each country's population can be expected and may have an impact on country differences, so the models were also controlled for their influence. We found no significant difference (adjusted for age, gender, and education) in morbidity between the Polish and Croatian elderly, however we expected some impact of morbidity on other health and quality of life measures. For this reason, the final models exploring possible differences between the countries were analyzed for each health and quality of life measure controlling for age, gender, education, morbidity, and all possible two-way interactions. A post hoc test (Scheffe) was used for evaluating the differences between educational levels and the countries related to vision ability results reported by the elderly.

Gender differences in health and the quality of life between age groups were explored using the Mann-Whitney U-test. Age differences in health and quality of life were explored separately for men and women using the Kruskal-Wallis H-test. Significance of trends in age groups concerning all health and quality of life measures in men and women were also tested separately for each country and gender.

Results

Table 1 presents health and quality of life differences between age and gender groups in Poland and Croatia. Four indices of health and the measure of quality of life differed significantly between the countries (Table 2). The Croatian elderly rated their health better and perceived significantly less bodily pain. The Polish elderly evaluated their vision ability better and experienced fewer depressive symptoms. They also reported better quality of life than the Croatian elderly. We found a single significant interaction between the educational level and the country, when Scheffe test revealed the strongest difference ($p = 0.025$) between elementary or not finished elementary education and secondary educational levels (Fig. 1). The difference between elementary and secondary levels of education in terms of vision ability was greater among the Croatian elderly than among the Polish.

With some exceptions, the analyzed data confirmed better health status and quality of life of men than women in both countries (Table 3). Most of these differences could be observed in age groups 70-74 and 75-79. Men in Poland and Croatia reported better self-rated health than women (for comparison see results in Table 1). In Poland, men reported fewer physical limitations and experienced less bodily pain than

Table 1. Mean scores on health and quality of life among age and gender groups in Poland and Croatia*

Population	SF-20 self-rated health	SF-20 physical health	SF-20 mental health	SF-20 bodily pain	OECD hearing ability	OECD vision ability	CBS chronic conditions	GARS functional status	De Jong-Gierveld loneliness	HADS-D depression	Cantril's ladder QoL
Poland:											
Men:											
65-69	2.11	72.46	67.51	44.21	2.51	2.37	3.17	23.43	2.72	5.45	5.98
70-74	2.06	66.90	65.86	53.17	2.82	2.41	3.37	23.85	2.45	5.07	5.94
75-79	2.47	70.54	72.47	45.35	2.91	2.12	2.61	22.86	2.14	4.35	6.37
80-85	2.50	63.89	73.11	47.22	3.39	2.67	3.44	25.28	2.39	4.72	6.11
total	2.20	69.51	68.43	47.66	2.77	2.36	3.15	23.61	2.49	5.04	6.06
Women:											
65-69	2.10	64.96	67.48	60.75	2.23	2.08	3.67	21.05	2.60	5.70	5.61
70-74	1.87	53.91	60.25	73.21	2.51	2.52	3.69	24.97	2.93	6.77	5.57
75-79	2.07	47.22	60.48	63.69	2.64	2.35	3.63	25.85	2.87	6.33	5.61
80-85	2.23	43.80	65.54	67.31	3.21	2.39	3.13	29.03	3.18	5.82	6.51
total	2.04	54.14	63.11	66.24	2.55	2.33	3.60	24.55	2.85	6.22	5.71
Total Poland	2.10†	60.37	65.27	58.71†	2.64	2.34†	3.42	24.17	2.70	5.74†	5.85†
Croatia:											
Men:											
65-69	2.75	69.51	67.09	36.36	2.43	3.09	3.39	22.55	2.14	5.39	5.36
70-74	2.74	70.43	66.97	40.86	2.87	2.97	2.84	23.65	2.39	6.61	6.13
75-79	2.67	69.44	60.00	28.89	2.80	3.60	3.73	21.93	3.13	5.00	5.13
80-85	2.86	45.24	65.14	42.86	2.14	3.14	3.17	28.71	3.14	7.43	6.00
total	2.74	68.04	65.81	37.11	2.61	3.13	3.25	23.25	2.44	5.87	5.62
Women:											
65-69	2.43	60.64	60.99	48.72	2.32	3.28	3.59	21.95	3.22	7.11	5.71
70-74	2.22	56.40	59.07	52.66	2.48	3.36	3.77	24.84	2.93	7.17	5.29
75-79	2.11	44.51	54.27	49.24	2.59	3.59	3.73	29.50	3.28	7.66	4.61
80-85	2.55	46.21	61.46	45.46	2.55	3.73	2.91	31.64	3.55	7.55	5.36
total	2.29	54.50	58.75	50.09	2.46	3.41	3.65	25.33	3.13	7.29	5.28
Total Croatia	2.44†	59.09	61.15	45.69†	2.51	3.32†	3.51	24.62	2.90	6.80†	5.40†

*Abbreviations: SF – Short Form General Health Survey; OECD – Organization of Economic Cooperation and Development; CBS – Central Bureau of Statistics; GARS – Groningen Activity Restriction Scale; HADS-D – Hospital Anxiety and Depression Scale; QoL – quality of life.
†$p < 0.05$ between the countries in the particular dimension of health and the quality of life.

Table 2. Differences in health and quality of life between the countries*

Characteristic	Self-rated health	SF-20 bodily pain	OECD vision	HADS-D	Cantril's ladder QoL
Age	0.027	0.017	0.644	0.911	0.149
Gender	0.052	<0.001	0.659	0.011	0.468
Education	<0.001	0.022	0.064	0.045	<0.001
Morbidity	<0.001	<0.001	0.097	0.003	<0.001
Country differences	<0.001†	<0.001†	<0.001‡	0.013‡	0.015†
Education/country interaction			0.017		
Gender/education interaction				0.005	

*Abbreviations: SF – Short Form General Health Survey; OECD – Organization of Economic Cooperation and Development; HADS-D – Hospital Anxiety and Depression Scale; QoL – quality of life.
†If no significant two way interaction has been found in general modelling procedure, significance levels from the main effect model are presented.
‡Significance levels from the custom model (main effect and all two-way interaction), where any of the predicted two-way interactions has been found significant in general modelling procedure.

Table 3. Gender differences in health and quality of life among age groups in Poland and Croatia*

Country	Age	SF-20 self-rated health	SF-20 physical health	SF-20 mental health	SF-20 bodily pain	OECD hearing ability	OECD vision ability	CBS chronic conditions	GARS functional status	De Jong-Gierveld Loneliness	HADS-D depression	Cantril's ladder QoL
Poland	65-69	0.915	0.026*	0,880	0.003†	0.005‡	0.010‡	0.017†	0.054	0.921	0.448	0.094
	70-74	0.139	0.003†	0.133	0.000†	0.028‡	0,646	0.147	0.619	0.427	0.006†	0.145
	75-79	0.012†	0.000†	0.006†	0.004†	0.241	0,075	0.007†	0.029†	0.109	0.040†	0.014†
	80-85	0.336	0.026†	0.238	0.036†	0.475	0.263	0.537	0.191	0.278	0.221	0.744
Croatia	65-69	0.074	0.223	0.155	0.60	0.779	0.222	0.285	0.249	0.002†	0.002†	0.374
	70-74	0.024†	0.075	0.027†	0.110	0.234	0.716	0.062	0.157	0.593	0.601	0.113
	75-79	0.046†	0.014†	0.328	0.068	0.098	0.327	0.092	0.020†	0.853	0.022†	0.345
	80-85	0.412	0.926	0.716	0.829	0.092	0.614	0.529	0.773	0.814	0.850	0.463

*Abbreviations: SF – Short Form General Health Survey; OECD – Organization of Economic Cooperation and Development; CBS – Central Bureau of Statistics; GARS – Groningen Activity Restriction Scale; HADS-D – Hospital Anxiety and Depression Scale; QoL – quality of life.
†Men report more positive results with regard to the analyzed indicator of health or quality of life in each age group (Mann-Whitney U test).
‡Women report more positive results with regard to the analyzed indicator of health or quality of life in each age group (Mann-Whitney U test).

Table 4. Age differences in health among men and women in both countries*

Population	Gender	SF-20 physical health	GARS function status	OECD hearing Ability	OECD vision Ability
Poland	Men	0.253	0.430	0.033†	0.650
	Women	0.028†	0.024†	0.038†	0.469
Croatia	Men	0.224	0.298	0.643	0.635
	Women	0.089	0.009†	0.132	0.015†

*Abbreviations: SF – Short Form General Health Survey; GARS – Groningen Activity Restriction Scale; OECD – Organization of Economic Cooperation and Development.
†Significant (p-values) for trends of deterioration of health with age.

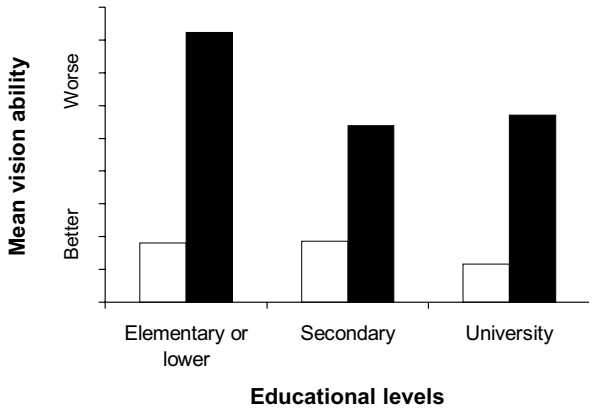

Figure 1. Differences in vision ability (degree of problems – limitations in vision reported by respondents) among educational levels in Poland and Croatia. Sheffe post-hoc test was significant (p=0.025) for the difference between elementary and secondary level of education in vision ability of the Croatian elderly. Open bars – Poland; closed bars – Croatia.

women in all age groups. In Croatia this result was significant only with regard to the physical limitations at age 75-79. Men reported better mental health and suffered from fewer chronic conditions in different age groups than women in both countries. The functional status of men aged 75-79 was better in comparison with women in both countries. Significant difference in loneliness was observed in favor of men in Croatia. Also, depressive symptoms were present to a lesser extent in Polish and Croatian men in different age groups. Significant difference in the quality of life between Polish men and women could only be seen in a single group. Women in Poland have fewer limitations in hearing and vision than men.

Table 4 shows age differences in health, in general favorable for younger age groups in both countries among men and women. Significant trends were found in physical health and functional status in Polish elderly women and in hearing ability in Polish men and women. Also, overall functional status and vision ability are worsening among Croatian women. However, the significance of differences in vision ability between age groups for Croatian women as measured by the Kruskal-Wallis test was not confirmed (mean values for older age groups increased regularly, so the trend is significant, but taking into consideration standard deviations there were no statistically significant differences between age groups; this is not shown in the tables). The pattern of worsening health with age was more visible among women than among men.

Discussion

The presented results confirmed significant differences in health status and quality of life between

Poland and Croatia, as well as gender and age differences within the countries. The elderly in Croatia evaluated their self-rated health better and experienced less bodily pain than the Polish elderly. On the other hand the Polish elderly had better vision ability, fewer depressive symptoms and better quality of life. The pattern of age and gender differences in health was similar in both countries: generally men and younger age groups reported a more positive evaluation of health.

The results also indicate that vision ability loss and depressive symptoms, especially in women, should be carefully investigated in Croatia. Higher vision ability loss in Croatia may be attributed to a higher incidence of eye diseases (caused by specific geographical conditions); senile cataract was the leading principal diagnosis at hospital discharge among the elderly in the Split-Dalmatian County in 1995 (27). However, different diagnostic procedures or treatment, influenced by the functioning of health care, as well as by cultural and social norms determining the symptoms and the time after which people seek help, could also influence the high vision ability loss among the Croatian elderly.

The transitional process of shifting to market economy in the described countries, bringing about many social, economic, and even cultural consequences can be viewed as a major cause of the elevated levels of depressive symptoms. Moreover, prior to this research, the Croatian elderly had experienced the war of 1991-1995, which was an additional cause of negative feelings such as depression. The war has been described as a trauma, negatively influencing various dimensions of health (especially mental health) (7). Considering the aggravation of symptoms, two cut-off points (8 – mild disorders and 11 – moderate or severe, clinically significant depression, on the 0-21 point scale) on the HADS-D scale used in this study were applied (25). There was a higher percentage of the Croatian elderly (over 20%) reporting mild disorders than the Polish elderly (15%). Fifteen percent of elderly people in Poland and 13.8% in Croatia were considered to have clinically significant depression. The frequency of depressive symptoms among the elderly in these countries (about 30%) is much higher than in the West European elderly, for example, depression in the Dutch or Norwegian elderly is estimated at 13-19 percent (10,25,28). Such frequency of depression is especially important because research shows that by no means every elderly person exhibiting depressive symptoms actually develops a depressive disorder (29). Also milder disorders that are not properly treated generally disappear for only a short period or become chronic (10).

The fact that the Polish elderly perceived more bodily pain than Croats cannot be explained by morbidity (model adjusted for morbidity). More research is needed to find out if the prevalence of specific (painful) chronic conditions correlates with perceived pain, and to discover if other factors (as was discussed for the loss of vision ability) could explain the observed difference.

Self-rated health of the Polish and Croatian elderly differs significantly in favor of the Croats, yet the quality of life is higher for the Polish elderly. An extensive analysis is required to investigate the determinants of self-rated health in Poland and the quality of life in Croatia to find out possible patterns explaining these findings, and suggesting ways to improve health and quality of life. Comparison of the results of these two general subjective measures highlights the problems of country comparisons. Comparisons of usually used objective measures, like life expectancy at birth or mortality from specific diseases (some indicators are better for Poland, others are better in Croatia) are also not comprehensive (30,31). Apart from cultural roots, these countries differ in many socio-economic indices: the percentage of elderly people, percentage of urban population, GDP per capita, expenditures for health care, and many other factors influencing direct comparisons (30,31).

Generally, most of the health evaluations of the elderly in Poland and Croatia described in this study were poorer in comparison with more highly developed countries. The elderly in Poland and Croatia suffer on average from a higher number of chronic conditions, perceive more bodily pain and report worse physical and mental health (10,32,33). Polish and Croatian Central Statistical Offices and the previous research show that the majority of the elderly evaluate their health negatively (17,34). This study confirms that 69% of the Polish elderly and 54% of the Croatian elderly report less than good health. According to the Social and Cultural Planning Office of the Netherlands (10), only 14% of the Dutch in the 65-74 years group and 17% in 75-84 years group evaluate their self-rated health as less than good. However, there were no clear, substantial differences in the functional status and loneliness between the elderly from Poland and Croatia and the results from the Netherlands (35,36). The explanation of such differences between Central and West European countries can be sought mainly in the history of the different systems in these countries. However, the transitional process deteriorating the situation of vulnerable populations (like the elderly) can be viewed as another possible origin of the differences. The differences between Poland and Croatia can also be explained by the above mentioned factors, but the closer gap and less differentiated results in a broad range of health measures between these countries indicate the significance of socio-cultural and geographical factors. Even so, political and economic aspects distinguishing the countries as well as different organization of health care have to be pointed out for their significant influence on a population's health.

Differences in health with regard to gender and age among the elderly in Poland and Croatia show similar patterns in comparison with more highly developed countries. Generally men and younger age groups report better health and the quality of life in comparison with women and older age groups. The presented results of gender differences in health reveal that almost all figures are in favor of men, which confirms the results of the previous research (9,10,17,32,33). Only hearing and vision ability and

some minor, not significant differences in other measures diverge from this pattern. Moreover, worsening of health with age was more visible among women than among men. It seems that women live longer, but at the same time not only suffer longer than men, but also start suffering earlier and more seriously. Men are less likely to report poor self-rated health, but they die younger than women. A study from Poland confirms that self-rated health is a strong predictor of mortality in men (37). These differences may originate from the socialization process, traditional gender roles and differences in social positions, and result in increased health consciousness of women (7,9). Women's health status needs attention, since illnesses and disabilities, which make performing of their social roles more difficult, characterize the lives of many older women. As Wroblewska puts it (34): "Along with traditional factors recognized by medicine, cultural, social and economic factors are of crucial significance in influencing the health of the population (especially the older part of it). Poor financial situation or insufficient financial resources may create problems in everyday life and fulfilling social roles especially for women, while their own health care is likely to become a secondary issue."

The pattern of age differences in health also developed in the expected way, although significant trends were found only in a few measures. Perhaps these measures (physical health, functional status, hearing and vision ability) compose the simplest and at the same time the strongest scales with regard to the influence of age. Maybe a larger sample size would increase the number of significant trends. The pattern of gender differences in health in the youngest (65-69) and the oldest (80-85) age groups is not clear. Most of the differences in health between men and women can be observed in age groups 70-74 and 75-79. Some of the health measures that were used may be sensitive to the subjective feeling of getting old as experienced by the elderly (which is a function of factors such as retirement age, possibility of continuing work, or having grandchildren). Perhaps these age groups represent the age when gender differences are stable and influenced to a minimal extent by the "feeling of getting old" hypothesis mentioned above or mortality selection.

Shortcomings of this study may stem from the effect of differences in the chosen populations: Polish elderly urban population was randomly selected from one of the biggest Polish cities, whereas the urban sample in Croatia was selected also from smaller towns as well. In this study we controlled for possible differences between the subgroups, namely age, gender, education and morbidity differences; however, as already mentioned, differences such as access to and functioning of health care, attitudes, norms and values or other social and cultural determinants can always be found between countries.

Present results suggest that using several chosen health status and quality of life indicators in monitoring health and policy implications and comparisons between the countries may allow for precise and sensitive insights into each country's specific situation. Poor health and quality of life produce a considerable task for public health bodies in Poland and Croatia to equal the standards of the European Union.

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