Assessing Socioeconomic Inequality in Self-Rated Health in Four ex-Yugoslav Countries: Does Social Capital Play a Role?

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DIGITALNI AKADEMSKI ARHIVI I REPOZITORIJI

Assessing Socioeconomic Inequality in Self-Rated Health in Four ex-Yugoslav Countries: Does Social Capital Play a Role?

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ABSTRACT

There has been a growing academic interest in explaining the well-established association between socioeconomic status and health. Among the various proposed mechanisms and pathways, social capital has been recognised as a potentially important antecedent of socioeconomic inequalities in health. However, these interrelationships remain relatively unexplored within the countries of former Yugoslavia. Therefore, this article aims to fill the gap in the literature by exploring the role of individual-level social capital in the relationship between socioeconomic status and self-rated health in four ex-Yugoslav countries. The present study is based on the data from the ninth round of the European Social Survey (2018). The author analysed the data of participants aged 25 and over from Croatia (N = 1534), Montenegro (N = 1002), Serbia (N = 1720) and Slovenia (N = 1149). In order to test the target associations, sequential multivariate logistic regression analysis was performed. The results show that occupational social class and several social capital indicators are associated with self-rated health, although independently of each other. Across all countries, unskilled and skilled manual workers and long-term unemployed individuals were more likely to report poor health compared to non-manual workers, with the exception of Montenegrin skilled manual workers and the long-term unemployed participants from Slovenia. Moreover, despite some cross-country differences in the relationship between individual levels of social capital and self-rated health, social participation was associated with self-rated health across all countries. These findings highlight the importance of encouraging social participation within these countries, which can lead to health benefits through behavioural and psychosocial mechanisms.

Key words: health inequalities, self-rated health, socioeconomic status, social capital, ex-Yugoslavia

INTRODUCTION

A substantial body of literature has examined the relationship between socioeconomic status and health, leading to the conclusion that people's socioeconomic background (as measured in terms of educational attainment, income or occupational social class) is related to their health status (Huijts, Eikemo and Skalická, 2010; Mackenbach et al., 2008; von dem Knesebeck, Verde and Dragano, 2006; von dem Knesebeck and Geyer, 2007; Vonneilich, Lüdecke and von dem Knesebeck, 2020). Over the last few decades, a considerable number of pathways and mechanisms have been proposed by researchers that aimed to explain this almost universal relationship (Dahl and Malmberg-Heimonen, 2010; McCartney, Collins and Mackenzie, 2013). Among these, social capital has been recognised as a potentially important antecedent of socioeconomic inequalities in health (Rostila, 2013). Past research has shown that individuals with lower socioeconomic status tend to have lower levels of social capital (Uphoff et al., 2013), and that social capital is associated with lower levels of general, physical and emotional self-rated health, as well as decreased physical inactivity, obesity and various forms of mortality (Kawachi et al., 1997; Kim et al., 2006; Mansyur et al., 2008; Poortinga, 2006a, 2006b; Rose, 2000). Additionally, there is some empirical evidence that these associations vary both within and across European countries and types of welfare state regimes (Rostila, 2007a, 2013; Vonneilich et al., 2020). For example, in a study that explored the relationship between social capital and health, Rostila (2007a) found that living in post-socialist countries, which are characterised by low levels of social trust, is the most detrimental for individual self-rated health when compared to other welfare state regimes. However, these associations remain relatively unexplored among the post-socialist countries of former Yugoslavia. Exploring these relationships within the region is important due to significant variations that exist between post-socialist countries in Central and South-Eastern Europe regarding welfare policy (Rostila, 2013), utilisation of healthcare resources and population health outcomes (Jakovljevic et al., 2017). Therefore, this study aims to extend the literature by examining the role of social capital in socioeconomic health inequalities within the region of ex-Yugoslavia.

DEFINITIONS OF SOCIAL CAPITAL

Several conceptual definitions of social capital have been proposed in the literature. Bourdieu defined it as a "sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition" (Bourdieu

and Wacquant, 1992: 119). While Bourdieu treats social capital primarily as a characteristic possessed by individuals, Putnam (2000) defines it as features of social organisations, such as social networks, civic participation and the norms of reciprocity and trustworthiness, that can improve the efficacy of societies. Similarly, Coleman (1990: 304) indicates that social capital is constituted by social organisations, "facilitating the achievement of goals that could not be achieved in its absence or could be achieved only at a higher cost". Since social capital was originally introduced by these authors, numerous refined conceptualisations have emerged since, leading to a broad concept that has become ambiguous and poorly differentiated (Bjørnskov and Sønderskov, 2013; Poortinga, 2006b). According to some authors, part of the difficulty with this concept is that it is borrowed from various disciplines like sociology, economy and political science (Kawachi and Berkman, 2014; Wilkinson, 2000). However, despite the diversity that exists within the literature on social capital regarding differential conceptual definitions and approaches to levels of analysis, there is a growing consensus that social capital is a multifaceted phenomenon consisting of three dimensions – social networks (e.g. social relations with family and friends, participating in voluntary associations), trust (e.g. interpersonal and institutional trust) and norms (e.g. civic values, norms and habits of cooperation) (van Oorschot and Arts, 2005; van Oorschot and Finsveen, 2010). For the purposes of this study, social capital is operationalised using these three dimensions and analysed at the individual level[1]. Therefore, the discussion on the potential role of social capital in socioeconomic inequalities in health will be limited solely to the individual level.

SOCIAL CAPITAL, HEALTH AND SOCIOECONOMIC INEQUALITIES

Several hypothesised mechanisms have been proposed in the literature that link social capital to people's health (Berkman and Krishna, 2014). For example, social capital can be a source of social support, which can lead to increased self-esteem, social competence and reduced risk of depression through its positive effects on emotional regulation, mood and perceived well-being. While social support derives from close ties to friends, family and the community, social capital derives not only from close ties but also from weak acquaintance ties which can help in quickly disseminating useful health-related information and health-promoting behavioural norms (Berkman and Krishna, 2014). Moreover, social capital can influence health by exerting informal social control over health-related behaviours, such as smok-

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[1]   The contextual level of analysis was not included in this study because it was not possible to estimate a multilevel model due to inadequate sample size at the second level of analysis.

ing, alcohol consumption and drug use (Kawachi and Berkman, 2014). On the other hand, as Portes (1998) mentioned, social capital may also have other, less desirable consequences. For example, tightly knit communities can be less tolerant or even exclude other groups or individuals, which may be detrimental to their health and well-being (Poortinga, 2006a). Moreover, while social relationships can be a source of many kinds of support, some can also be stressful and contribute to psychological distress (Umberson and Karas Montez, 2010).

Past research has consistently reported a strong link between various indicators of social capital and health, both at the individual and the collective level. For example, on a sample of individuals from 22 European countries, Poortinga (2006a) has shown that participants with higher individual-level social trust and civic participation tend to report better health. Moreover, in an ecological study on American participants, Kawachi et al. (1997) found that social trust was correlated with all-cause and various types of cause-specific mortality. Fewer studies, however, have examined the role of social capital in the relationship between socioeconomic inequality and health. In a recent study of 22 European countries, Vonneilich et al. (2020) found that social relationships significantly contributed to the explanation of the relationship between educational inequalities and self-rated health. Similarly, Rostila (2007a) has shown that social capital (as measured by informal and formal social ties) helps explain inequalities in health that exist within social classes in Sweden, although these contributions appear to be small.

Several mechanisms were proposed in the literature that could account for these interrelationships. Lin (2000) suggests that people with lower socioeconomic status tend to form networks with others of similar social standing. Because these networks often have poorer social resources, individuals within them share a restricted variety of information and influence. Additionally, individuals with higher socioeconomic status tend to belong to groups that exert more informal social control over health-related behaviours and encourage leisure-time physical activities and smoking cessation (Lindström, Hanson and Östergren, 2001). However, empirical studies that examined the role of social capital in the relationship between socioeconomic inequality and health have produced mixed findings. While some studies found that social capital explains socioeconomic inequalities in health (Borgonovi and Pokropek, 2016; Ichida et al., 2009; Rostila, 2007b; Vonneilich et al., 2020), other studies reported no such effects (Dahl and Malmberg-Heimonen, 2010). These inconsistencies could be due to varying operationalisations of social capital in different studies. Furthermore, this association most likely varies between countries and regions as a result of different cultural values, historical backgrounds and political systems (Ichida et al., 2009; Mansyur et al., 2008). For example, in a recent study of social capital and educational health inequalities in 26 European

countries, Rostila (2013) has shown that the contribution of social resources to educational health inequalities was significantly larger in the Mediterranean and post-socialist regimes, as compared to other types of welfare states. The author concluded that this finding could be attributed to the general scarcity of resources and underdeveloped welfare systems in these countries, which makes social resources provided by social networks a particularly valuable resource for health and well-being among disadvantaged groups. However, because of large variations that exist among post-socialist countries in central and eastern Europe (Rostila, 2013), country-specific analyses are warranted. Although some studies that examined the associations between social capital, socioeconomic status and health have analysed the data from ex-Yugoslav countries jointly with other East European (Olsen and Dahl, 2007) or post-socialist countries in Europe (Rostila, 2013), to date no cross-national comparative study focusing on ex-Yugoslav countries has been published that examined these relationships.

Comparative research on these associations within the region is of particular interest for two major reasons. Firstly, the countries of ex-Yugoslavia share a common past in terms of healthcare organisation, policy design and financing patterns, which differs significantly from other post-socialist countries (Jakovljevic et al., 2017). Findings from a recent study of South-Eastern European countries (Jakovljevic et al., 2017) suggest that, during the last few decades, ex-Yugoslav countries have had a significantly different pattern of change in various healthcare resource utilisation and population health outcomes, such as longevity, death rates and life expectancy, compared to other post-socialist countries that had applied a different model of healthcare management and funding. Further, several of these countries experienced violent conflict during the 1990s, as well as an economic decline and deterioration of health infrastructure, which had put immense pressure on health services (Kunitz, 2004; Pevalin and Robson, 2007). Indeed, studies on life expectancy rates indicate a clear upward trend and a convergence of life expectancy within the region of former Yugoslavia until the end of the 1980s, followed by a period of significant divergence during the 1990s due to rapid social, political and economic changes (Kunitz, 2004; Lotrič Dolinar et al., 2020; Mackenbach, 2013). However, findings from a more recent study by Lotrič Dolinar et al. (2020) indicate that there have been common patterns in life expectancy improvements in three ex-Yugoslav countries (Croatia, Serbia and Slovenia) in the past few decades. Apart from the studies which focused on macro-level measures of population health, quantitative studies on socioeconomic inequalities in health within the region are sparse. The only previous study that explored these relationships in the countries of the region is the one by Eikemo et al. (2010). Although it remains an important study in determining the prevalence of educational inequalities in health

within the studied region, the authors did not explore the potential mechanisms that could help explain the determined socioeconomic gradient in health. Against this background, the present study aims to fill the gap in the literature by exploring the relationship between social capital and socioeconomic inequality in health within this region.

STUDY AIMS

The primary aim of this study is to examine the interrelationships between social capital, socioeconomic status and self-rated health within four ex-Yugoslav countries: Croatia, Montenegro, Serbia and Slovenia, focusing in particular on two research questions: (1) how is social capital associated with self-rated health in four countries of former Yugoslavia, and (2) does controlling for social capital indicators attenuate the relationship between socioeconomic status and self-rated health?

METHODS

Data and Participants

The analyses presented in this study are based on the data from the ninth round of the European Social Survey (ESS), a repeated cross-national survey that has been administered in over 30 European countries since 2002. The ESS covers a wide range of topics, organised in a repeating core section and a rotating section, which varies each round. Every two years, face-to-face interviews are conducted on national representative samples of persons aged 15 and over in each of the participating countries. In order to ensure high comparability of the data, individuals are selected by strict random probability methods at all stages, and the sample design must adhere to rigorous predefined methodological standards. More detailed information about ESS sampling, recruitment and data collection procedures can be found on the ESS website (https://www.europeansocialsurvey.org), along with freely available data and documentation for each round of the survey.

The analyses relied on data provided by individuals aged 25 and over from Croatia (N = 1534), Montenegro (N = 1002), Serbia (N = 1720) and Slovenia (N = 1149). Following recommendations, participants younger than 25 years of age were excluded as many of them had not yet completed their education (Huijts et al., 2010; Lahelma et al., 2002) and were mostly inactive in the labour market.

Measures

Dependent variable

Self-rated general health (SRH) was measured using the following question: "How is your health in general? Would you say it is…", with eligible responses being: "very good", "good", "fair", "bad" and "very bad". Self-rated general health is one of the most widely used indicators of subjective health in the literature and has proven to be a good predictor of mortality (Idler and Benyamini, 1997; Jylhä, 2009; Poortinga, 2006b). This variable was dichotomised to be used as a dependent variable in multivariate logistic analyses, so that response categories "good" and "very good" indicated good general health (code 0) while categories "fair", "bad" and "very bad" indicated poor general health (code 1).

Independent variables

Socioeconomic status

The socioeconomic indicator used in this study was occupational social class, a well-established measure of socioeconomic status. This measure was operationalised using the Erikson-Goldthorpe-Portocarero social class schema (EGP) (1979), a widely used nationally comparable classification schema that defines socioeconomic positions in terms of employment relations (Rose and Harrison, 2010). Assignment of occupation categories from the ESS data to the EGP measure was conducted using a modified version of the algorithm developed by Ganzeboom and Treiman (2019; Leiulfsrud, Bison and Solheim, 2005). The EGP class schema differentiates ten occupational categories: "higher grade professionals" (class I), "lower grade professionals" (class II), "routine non-manual workers" (class III), "self-employed with employees" (class IVa), "self-employed without employees" (class IVb), "self-employed farmers" (class IVc), "manual supervisors" (class V), "skilled manual workers" (class VI), "unskilled manual workers" (class VIIa) and "farm workers" (class VIIb). This variable was subsequently recoded into four categories: "non-manual workers" (classes I + II + III), "skilled manual workers" (classes V + VI), "unskilled manual workers" (class VIIa) and other occupational classes (classes IVa, IVb, IVc, VIIb). The participants who were not employed at the time, for example, short-term unemployed and retired participants, were asked about their previous employment and assigned to the corresponding occupational category. Although EGP class schema does not specify an occupational position for those who are permanently excluded from paid employment, an additional cate-

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gory was added for the long-term unemployed (e.g. those who never had a paid job) in order to be able to classify most of the adult population (Rose and Harrison, 2007).

Social capital

For the purposes of this study, individual-level social capital was operationalised as a multi-faceted phenomenon with three distinct dimensions, as distinguished in the literature (trust, networks and norms) (van Oorschot and Arts, 2005; van Oorschot and Finsveen, 2010). However, in this study, only trust and network dimensions were measured, as the ESS data does not provide indicators for adequately measuring the social norms dimension.

The trust dimension of social capital refers to trust in social institutions and in other people. The ESS contains seven indicators used for measuring trust in a country's institutions (such as the parliament, legal system, political parties, etc.) and three indicators for measuring generalised trust (e.g., "Using this card, generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?"). Both the institutional and generalised trust are measured on a ten-point scale, where higher scores indicate higher trust. In order to determine whether these two dimensions of social trust are empirically distinct, a principal component analysis (PCA) with varimax rotation was performed separately for each country, using the Guttman-Kaiser (GK) criterion for the extraction of components. Two significant components were retained in each country, except in Serbia, in which the items "trust in the United Nations" and "trust in the European Parliament" formed a separate component. After removing these two items from the analysis, the remaining items formed two distinct components that explained between 61% and 74% of the total variance in the four national samples. Items measuring institutional trust had factor loadings between 0.72 and 0.91,[2] while items measuring generalised trust had factors loadings between 0.73 and 0.87. Institutional and generalised trust independent variables were created by summing the answers from their respective questions. Both scales had acceptable internal consistency coefficients (Cronbach's alphas for institutional trust ranged between .83 and .92, and for generalised trust between .67 and .80).

The network dimension of social capital refers to social relations between friends, family and other associations, as well as passive and active participation

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[2]   A notable exception is the rather low factor loading of the item "trust in the police" in the Croatian sample (r=0.51). Following recommendations, all factor loadings greater than or equal to 0.5 were considered significant (Hair et al., 2014). Therefore, this item was retained in the subsequent analyses.

in voluntary organisations. Individual-level social relations were measured with two variables: frequency of social contact and social participation. The frequency of social contact was measured by asking participants how often they met socially with friends, relatives or colleagues, with responses on a scale ranging from 1 ("never") to 7 ("every day"). Social participation was assessed by asking participants the following question: "Compared to other people of your age, how often would you say you take part in social activities?", with answers ranging from 1 "much less than most" to 5 "much more than most". Both indicators were entered into the multivariate logistic regression model as continuous predictors. Higher scores were indicative of a higher frequency of social contact and social participation, respectively.

Analytical Strategy

The data used in this study were weighted using information from the ESS in order to match national samples to the sociodemographic characteristics of their respective populations, as well as to account for sampling error, non-response bias and differential selection probabilities within the countries. Sequential multivariate logistic regression analyses were conducted separately for each country in order to explore the associations between socioeconomic status, social capital, and self-rated health. In the first step, the model included only basic sociodemographic indicators (gender and age) and occupational social class (model A), while social capital indicators were added in the second step (model B). Comparing the coefficients from the two models should reveal whether adding social capital indicators attenuates the association between occupational social class and self-rated health.

In order to address the robustness of the findings, multivariate hierarchical regression analysis with the original (non-dichotomised) version of the dependent variable was performed, taking into account the full range of the self-rated health variable. Occupational social class categories were entered into the model as dummy variables (the largest category, non-manual workers, was employed as the referent category). Moreover, to take into account the other dimensions of socioeconomic status, the logistic regression analysis from the primary analytic approach was repeated as an additional robustness check with the International Socio-Economic Index of Occupational Status (ISEI) serving as the main socioeconomic indicator instead of the nominal EGP class categories (Ganzeboom, de Graaf and Treiman, 1992; Ganzeboom and Treiman, 1996). The ISEI scores combine the data on the three main dimensions of socioeconomic status – occupational status, educational attainment and income – and generate scores for each occupation by the optimal scaling of the occupational unit group in the ISCO classification. The scores range from 16 to 90, where higher scores indicate a higher occupational

status. All analyses were conducted using IBM SPSS v27 statistical software package (see online Supplement for analytical procedures).

RESULTS

Table 1 presents an overview of the dependent and independent variables used in the present study for each of the four national samples.

Table 1   Descriptive statistics of the dependent and independent variables by country (weighted data)

	Croatia	Montenegro	Serbia	Slovenia
N	1534	1002	1720	1149
Gender (% female)	53.1%	50.4%	51.1%	52.0%
Occupational class				
Non-manual workers	42.8%	53.6%	41.8%	55.5%
Skilled manual workers	15.5%	7.8%	13.6%	11.0%
Unskilled manual workers	22.9%	11.5%	19.5%	19.2%
Other occupational classes	10.4%	7.4%	11.0%	9.8%
Long-term unemployed	8.3%	19.8%	14.1%	4.5%
Self-rated general health (% poor health)	38.9%	32.2%	46.1%	38.3%
Social participation (% less than most)	47.6%	40.4%	35.4%	42.9%
Frequency of social contact (% never to once a month)	15.5%	7.8%	17.4%	25.9%
Age, mean (SD)	53.1 (16.0)	48.4 (15.0)	50.1 (15.4)	53.4 (16.0)
Individual institutional trust, mean (SD)	2.7 (1.8)	3.9 (2.5)	3.4 (2.4)	3.7 (1.9)
Individual generalised trust, mean (SD)	4.2 (2.0)	3.7 (2.1)	3.6 (2.1)	4.9 (2.0)

Sequential multivariate logistic regression analyses carried out separately for each country with poor self-rated general health as outcome variables are presented in Table 2. In model A, only sociodemographic variables and occupational social class were included. Age and occupational class were found to be significant predictors of poor health in all four countries. An increase in age was associated with an increased likelihood of reporting poor health (see Table 2 for odds ratios and

confidence intervals). Additionally, women were more likely than men to report poor health in Croatia, Montenegro and Serbia. Across all countries, unskilled manual workers were more likely to report poor health compared to non-manual workers. In three countries – Croatia, Serbia and Slovenia, skilled manual workers were more likely to report poor health than non-manual workers. The long-term unemployed were more likely to report having poor health in all countries except Slovenia, while other occupational classes, which include various kinds of self-employed individuals and farm workers, were more likely to report poor health than non-manual workers only in Serbia.

Adding social capital indicators into Model B had a limited effect on age and occupational class, which remained significant predictors of poor self-rated general health in all four countries. Gender was a significant predictor in Montenegro and Serbia, where women were 1.5 and 1.8 times more likely to report poor health compared to men, respectively. Across all countries, higher levels of social participation were associated with lower odds of reporting poor health. In contrast, higher frequency of social contact was associated with lower odds of reporting poor health only in Serbia. When social trust indicators are concerned, higher levels of institutional trust were associated with lower odds of reporting poor health among Croatian participants, while higher levels of generalised trust were associated with lower odds of reporting poor health among Serbian participants.

To take into account the full range of response categories of the main outcome variable, a multivariate regression analysis was performed. The robustness test did not change the pattern of significant findings from the logistic regression analysis, apart from frequency of social contact emerging as a significant predictor in Croatia and Montenegro, as well as individual generalised trust in Croatia and Slovenia. Finally, to take into account other dimensions of socioeconomic status, the logistic regression analysis from the primary analytic approach was repeated with the International Socioeconomic Index of Occupational Status (ISEI) as the primary socioeconomic indicator. Across all countries, participants with higher ISEI scores reported better health. Significant associations from the main analysis remained consistent, apart from social trust once again emerging as a significant predictor in Croatia and social participation no longer being significant in Montenegro.

Table 2   Sociodemographic, socioeconomic and social capital correlates and predictors of poor self-rated health by country

	Croatia n = 1422		Montenegro n = 903		Serbia n = 1517		Slovenia n = 1047	
MODEL A	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Age	1.05**	1.04 – 1.06	1.07**	1.06 – 1.09	1.06**	1.06 – 1.07	1.06**	1.05 – 1.07
Gender (ref. = Male)								
Female	1.29**	1.01 – 1.64	1.53**	1.10 – 2.12	1.68**	1.33 – 2.13	1.07	0.8 – 1.42
Occupational class (ref. = Non-manual workers)								
Skilled manual workers	1.90**	1.35 – 2.68	0.94	0.51 – 1.72	1.66**	1.17 – 2.36	1.94**	1.24 – 3.04
Unskilled manual workers	1.81**	1.34 – 2.44	2.11**	1.29 – 3.45	2.10**	1.54 – 2.87	1.88**	1.32 – 2.67
Other occupational classes	0.86	0.56 – 1.31	0.81	0.42 – 1.56	1.66**	1.14 – 2.42	1.02	0.64 – 1.64
Long-term unemployed	2.92**	1.84 – 4.63	2.37**	1.57 – 3.59	2.23**	1.54 – 3.23	1.41	0.69 – 2.90
Nagelkerke's R^2	.20		.28		.26		.21	
MODEL B	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Age	1.05**	1.04 – 1.06	1.07**	1.06 – 1.08	1.06**	1.05 – 1.07	1.05**	1.05 – 1.06
Gender (ref. = Male)								
Female	1.21	0.95 – 1.55	1.46**	1.05 – 2.03	1.70**	1.33 – 2.16	1.02	0.77 – 1.36
Occupational class (ref. = Non-manual workers)								
Skilled manual workers	1.70**	1.20 – 2.42	0.92	0.50 – 1.68	1.59**	1.11 – 2.28	1.78*	1.14 – 2.80
Unskilled manual workers	1.56**	1.15 – 2.12	2.07**	1.26 – 3.39	1.84**	1.33 – 2.54	1.70**	1.18 – 2.44
Other occupational classes	0.78	0.51 – 1.20	0.83	0.43 – 1.59	1.66**	1.12 – 2.45	0.98	0.60 – 1.58
Long-term unemployed	2.33**	1.44 – 3.76	2.27**	1.49 – 3.44	1.89**	1.29 – 2.77	1.22	0.58 – 2.53
Social participation	0.79**	0.68 – 0.89	0.80*	0.68 – 0.94	0.75**	0.65 – 0.85	0.81**	0.70 – 0.94
Frequency of social contact	0.93	0.86 – 1.00	0.96	0.86 – 1.08	0.87**	0.80 – 0.94	0.95	0.86 – 1.04
Individual institutional trust	0.93*	0.87 – 0.99	0.97	0.91 – 1.04	0.98	0.93 – 1.03	1.01	0.93 – 1.10
Individual generalised trust	0.94	0.88 – 1.00	1.02	0.95 – 1.11	0.87**	0.83 – 0.92	0.94	0.87 – 1.01
Nagelkerke's R^2	.24		.29		.32		.23	

Note. CI = confidence interval around the odds ratios (*OR*); * $p < .05$, ** $p < .01$.

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DISCUSSION

The primary aim of this study was to examine individual-level associations between social capital, socioeconomic status and self-rated health in four countries of ex-Yugoslavia. The results of the multivariate logistic regression analyses revealed that socioeconomic status, as measured by occupational social class, was associated with self-rated health in Croatia, Montenegro, Serbia and Slovenia. More specifically, unskilled manual workers were more likely than non-manual workers to report poor health across all countries. In all countries except Montenegro, skilled manual workers were more likely to report poor health compared to non-manual workers. Additionally, with the exception of Slovenian participants, the long-term unemployed were more likely to report poor health than non-manual workers. These findings are consistent with other studies which show that professionals and other non-manual workers tend to have better health and lower mortality rates compared to other occupational classes (Aldabe et al., 2011; Eikemo et al., 2008; Kunst, Groenhof and Mackenbach, 1998; Poortinga, 2006b; Rostila, 2007b). Moreover, the present study corroborates the findings from the study conducted by Eikemo and his colleagues (2010), which found health inequalities by educational attainment in seven countries of former Yugoslavia.

As expected, older participants from all four national samples were more likely to report poor health than younger participants, which is consistent with past research (Dahl and Malmberg-Heimonen, 2010; Poortinga, 2006b, 2006c). Women were more likely than men to report poor health in three countries. However, this relationship was no longer significant in the Croatian sample after controlling for social capital indicators. Because the focus of this study does not allow for further exploration of this relationship, it can only be speculated that this finding is attributable to disparities in access to social capital between men and women (Eriksson et al., 2010).

The findings from the present study indicate that frequency of social contact was associated with lower odds of reporting poor health among Serbian participants. These results are in line with previous studies which reported a protective effect of different kinds of informal social relations against poor self-rated health (Poortinga, 2006b; Rostila, 2013; Vonneilich et al., 2020). Furthermore, social participation was associated with lower odds of reporting poor health across all countries, suggesting that weaker, non-intimate ties that represent bridging relationships between groups play a more prominent role in self-rated health in ex-Yugoslav countries compared to close, strong attachments between friends, family and relatives. It is likely that individuals with more extensive and diverse social networks ties can rely on their social ties for the provision of various health-promoting social resources,

as well as getting access to needed health-related information. Moreover, through social contact individuals can realise opportunities for companionship and socia-bility, which can provide a sense of belonging, value and coherence that allows for a high level of well-being (Berkman and Krishna, 2014). This finding is in line with previous studies on social capital and health, which have shown that individuals living in a post-socialist context often have to rely on social resources embedded in their social networks for aid and support (Rostila, 2007a, 2013).

The results also indicate that individual levels of institutional trust were associ-ated with lower odds of reporting poor self-rated health in Croatia, while general-ised trust was associated with poor health in Serbia. This association is consistent with previous studies which found a positive association between social trust and health at the compositional level (Dahl and Malmberg-Heimonen, 2010; Habibov and Afandi, 2011; Mansyur et al., 2008; Poortinga, 2006c). It is possible that these associations were not found in other ex-Yugoslav countries due to country-specific, contextual economic and institutional factors, such as institutional quality or effec-tiveness of the legal system and formal support policies (d'Hombres et al., 2011).

Finally, the present study aimed to examine whether controlling for social capital indicators attenuates the relationship between socioeconomic status and self-rated health in ex-Yugoslav countries. The results show that the relationship between occupational social class and self-rated health is not altered substantially after add-ing social capital indicators to the initial model across all countries. In other words, social capital indicators and occupational class are related to self-rated health in-dependently of each other. This finding is consistent with the studies conducted by Rose (2000), Dahl and Malmberg-Heimonen (2010) and Habibov and Afandi (2011), who reported similar results.

STUDY LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Several limitations of the present study need to be addressed. Firstly, because the data used in this study is cross-sectional in design, it is not possible to assess the direction of target relationships. Therefore, future studies should make use of a longitudinal research design, which allows for exploring causal pathways. Second-ly, the present study only examined the target relationships at an individual level. However, researchers have highlighted the importance of distinguishing between the individual (compositional) and the collective (contextual) levels of social capital in order to better understand the complex relationship between social capital and health (Mansyur et al., 2008; Poortinga, 2006b; Rostila, 2007a). Thirdly, the data

needed to study the target associations were not readily available for all ex-Yugoslav countries. Therefore, future studies should extend the analyses presented in this study to all ex-Yugoslav countries, should the data become available. Furthermore, future studies should consider controlling for potential confounders of the target relationships, such as health-promoting and health-damaging behaviours (e.g., physical activity and tobacco or alcohol consumption), as well as psychosocial factors such as self-esteem, depression or social competence (Berkman and Krishna, 2014). Finally, the present study focused only on the potential positive effects of social capital on self-rated health and excluded from the analysis the possible negative outcomes such as the psychological distress resulting from stressful social networks.

CONCLUSION

Past research has demonstrated that individuals with higher socioeconomic status tend to have higher levels of social capital and that social capital is positively associated with self-rated health. To date, these interrelationships have not been explored in countries of former Yugoslavia. The present study provides a unique assessment of the associations between occupational social class, social capital, and self-rated health in Croatia, Montenegro, Serbia and Slovenia. The findings reveal a clear class-related social gradient in health across ex-Yugoslav countries. Furthermore, despite some cross-country differences in the relationship between social capital indicators and self-rated health, individuals with higher levels of social participation tend to report better health across all analysed countries. This finding highlights the importance of weak, non-intimate ties for people's health status in these countries, providing some support for the hypothesis that people living in a post-socialist context often have to rely on their social networks for the provision of different kinds of support (Rostila, 2013). Although the findings indicate that occupational social class and several social capital indicators are important, they are related to self-rated health independently of each other. The present study highlights the importance of promoting social participation within the region, which can impact health through various behavioural and psychosocial mechanisms (Berkman and Krishna, 2014).

FUNDING

None.

CONFLICT OF INTEREST

Authors declare no conflict of interest.

ETHICAL APPROVAL

Not applicable [secondary data analysis].

DATA ACCESS AND TRANSPARENCY

Data available from the European Social Survey data archive:

ESS (2018). *European Social Survey Round 9 Data*. NSD - Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC. Data File Edition 3.1. https://doi.org/10.21338/NSD-ESS9-2018

Analytic procedures in SPSS available as the online Supplement to this article (https://hrcak.srce.hr/ojs/index.php/rzs/libraryFiles/downloadPublic/230).

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Analiza socioekonomskih nejednakosti u samoprocijenjenom zdravlju u četirima državama bivše Jugoslavije – ispitivanje uloge društvenog kapitala

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SAŽETAK

U posljednjih nekoliko desetljeća porastao je akademski interes za objašnjavanje gotovo univerzalne povezanosti između socioekonomskog statusa i zdravlja. Među brojnim mehanizmima u literaturi koji bi mogli objasniti socioekonomske nejednakosti u zdravlju, koncept društvenog kapitala zauzima posebno mjesto. Međutim, spomenute su veze još uvijek relativno neistražene među državama bivše Jugoslavije. Ovim se radom stoga nastoji popuniti praznina u literaturi kroz istraživanje uloge individualne razine društvenog kapitala u odnosu između socioekonomskog statusa i samoprocijenjenog zdravlja u četirima državama bivše Jugoslavije. Analize prikazane u radu temelje se na podatcima iz 9. kruga Europskoga društvenog istraživanja iz 2018. godine, pri čemu su analizirani podatci sudionika starijih od 24 godine iz Hrvatske (N = 1534), Crne Gore (N = 1002), Srbije (N = 1720) i Slovenije (N = 1149). U svrhu testiranja ciljanih povezanosti provedena je multivarijatna logistička regresijska analiza. Rezultati analize pokazuju da je samoprocijenjeno zdravlje negativno povezano s društvenom klasom u svim državama, pri čemu su nekvalificirani i kvalificirani fizički radnici te dugoročno nezaposleni pojedinci imali lošije samoprocijenjeno zdravlje od nefizičkih radnika, s iznimkom kvalificiranih radnika iz Crne Gore te dugoročno nezaposlenih sudionika iz Slovenije. Također, utvrđena je negativna povezanost između samoprocijenjenog zdravlja i nekoliko indikatora društvenog kapitala, pri čemu je ta povezanost neovisna o socioekonomskom statusu. Iako su utvrđene razlike među državama, društvena participacija značajno je povezana sa samoprocijenjenim zdravljem u svim četirima državama. Dobiveni nalazi upućuju na važnost promoviranja društvene participacije, koja kroz brojne bihevioralne i psihosocijalne mehanizme može imati pozitivnu ulogu u zdravlju ljudi.

Ključne riječi: zdravstvene nejednakosti, samoprocijenjeno zdravlje, socioekonomski status, društveni kapital, bivša Jugoslavija