

SOCIOECONOMIC INEQUALITIES IN SELF-RATED HEALTH, MENTAL HEALTH AND DEPRESSION: SLOVENIAN 2013 NATIONAL YOUTH STUDY

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Abstract: Studies of socioeconomic inequalities in health have consistently shown that people from lower socioeconomic backgrounds have worse health outcomes. Furthermore, past research has also indicated the ubiquity of socioeconomic inequalities in health across modernized countries – inequalities which are not only continuing but also increasing (Marmot et al., 1991; Macintyre, 1997; Della Bella et al., 2012; Avendaño et al., 2005; Mackenbach, 2012). Similarly, past studies of the Slovenian population have detected a socioeconomic gradient in health (Buzeti et al., 2011; Farkas and Zaletel-Kragelj, 2011; Jeriček Klanšček and Žiberna, 2012; Kirbiš, 2013), with inequalities increasing in the last decade, according to some health indicators (e.g., Malnar and Kurdija, 2012). Since relatively few past studies focused on health inequalities among post-adolescent youth and young adults, the aim of the present research was to examine the impact of individual and family socioeconomic status (SES) on self-rated health, mental health and depression among young people aged 16–27 years. We analyzed survey data from the FES-CEPYUS Slovenian Youth 2013 Study (N = 907). Health outcomes were measured with three single-item indicators: 1) self-rated health; 2) self-rated mental health; 3) and self-reported depression. Results indicated that SES indicators (educational level of the respondent, the mother and the father, self-assessed family material status, and the respondent's monthly income), combined with gender and age that were also included in all regression models, explained 5.0 % of variance (self-rated health), 6.6 % of variance (self-rated mental health) and 6.3 % of variance (self-reported depression). The authors conclude that, among Slovenian youth, SES has a somewhat greater impact on mental health than on general health. Implications of the results are discussed.

Keywords: self-rated health, self-rated mental health, self-reported depression, Slovenian youth, socioeconomic inequalities, social responsibility

SOCIOEKONOMSKE NEENAKOSTI V SAMOOCENJENEM ZDRAVJU, DUŠEVNEM ZDRAVJU IN DEPRESIVNOSTI: NACIONALNA RAZISKAVA SLOVENSKE MLADINE 2013

Povzetek: Številne raziskave socioekonomskih neenakosti v zdravju so pokazale, da imajo ljudje iz nižjih socioekonomskih skupin slabše zdravje. Poleg tega so pretekle raziskave pokazale tudi na vseprisotnost tovrstnih neenakosti v zdravju v razvitih industrijskih družbah, ki se v zadnjih letih ohranjajo in celo povečujejo (Marmot et al., 1991; Macintyre, 1997; Della Bella et al., 2012; Avendaño et al., 2005; Mackenbach, 2012). Podobno so tudi pretekle študije slovenske

populacije zaznale socioekonomski gradient v zdravju (Buzeti et al., 2011; Farkas and Zaletel-Kragelj, 2011; Jeriček Klanšček and Žiberna, 2012; Kirbiš, 2013), ki se je v zadnjem desetletju po podatkih nekaterih raziskav še povečal (npr. Malnar in Kurdija, 2012). Ker obstaja relativno malo raziskav o neenakostih v zdravju med postadolescentno mladino in mlajšimi odraslimi, je bil cilj naše raziskave na vzorcu mladih v starosti med 16 in 27 let preučiti vpliv socioekonomskega statusa (SES) posameznika in njegove družine na njegovo samoocenjeno zdravje in duševno zdravje. Analizirali smo podatke FES–CEPYUS študije slovenske mladine iz leta 2013 (N = 907). Zdravje je bilo izmerjeno s tremi uveljavljenimi kazalniki subjektivnega zdravja: 1) samoocenjeno zdravje; 2) samoocenjeno duševno zdravje; 3) samoocenjena depresivnost. Rezultati so pokazali, da so kazalci SES (izobrazba matere, očeta in respondenta, mesečni dohodek respondenta in samoocenjeni materialni status družine), v kombinaciji s spremenljivkama spola in starosti, ki sta bili vključeni v vse regresijske modele, pojasnili 5,0 % variance (samoocenjeno zdravje), 6,6 % variance (samoocenjeno duševno zdravje) in 6,3 % variance (samoocenjena depresivnost). Avtorji sklenejo, da ima med mladimi v Sloveniji SES večji vpliv na njihovo duševno zdravje. Predstavljene so implikacije rezultatov.

Ključne besede: samoocenjeno zdravje, samoocenjeno duševno zdravje, depresivnost, slovenska mladina, socioekonomske neenakosti v zdravju, družbena odgovornost

1. Introduction

Human Development Report indicates that Slovenia is one of the socioeconomically more developed countries since in comparative perspective it ranks relatively high on all three components on the Human Development Index. Specifically, on this indicator of countries' socioeconomic development Slovenia scores relatively high in gross national income, educational levels and life-expectancy at birth (HDR, 2013). The latter is an important indicator of health of a country's population. Besides average levels of health, measures of inequalities (e.g. inequalities in health) are also an important indicator of population health. The same average levels of health in two or more countries may namely not convey sufficient information, since they can correspond to vastly different distributions of health variables across groups or individuals in countries' population. Measures of health inequalities, on the other hand, indicate variations of health status across populations and within populations (Murray et al., 1999: 537).

Studies of socioeconomic inequalities in health have consistently shown 1) that people from lower socioeconomic backgrounds have worse health outcomes; 2) that socioeconomic inequalities in health exist across modernized countries; 3) that in the recent decades health inequalities are not only continuing but often also increasing (Marmot et al., 1991; Macintyre, 1997; Adler and Ostrove, 1999; Lundberg and Lahelma, 2001; Ferrie et al., 2002; Avendaño et al., 2005; Phelan et al., 2010; Della Bella et al., 2012; Mackenbach, 2012). In Slovenia, for example, a 30-year-old man with a university degree can expect 7.3 years longer life than a man with completed primary education or less. The infant mortality rate of babies whose mothers have (un)completed primary education is 2.6 times higher than those whose mothers have tertiary education (Buzeti et al., 2011).

There are three broad understandings on the concept of health inequalities: the concept can be used to denote 1) health differences between individuals, 2) health differences between population groups, or 3) health differences between those occupying unequal positions in the dominant social hierarchies (Graham, 2007). Though different authors argue for the use of different understandings of the term (on the use of the term health inequalities to denote health differences between individuals, see, for instance, Murray et al., 1999), in the present study we follow the most commonly used understanding of the concept identifying health differences between those occupying unequal positions in the social structure (see, among others, Graham, 2007), i.e. differences in health among different SES groups.

As already noted, a vast body of literature indicates that people from higher socioeconomic backgrounds have better health outcomes (see, among other, Marmot et al., 1991; Adler and Newman, 2002; Adda et al., 2003; Marmot, 2005; Marmot and Wilkinson, 2005; Halleröd and Gustafsson, 2010; Semyonov et al., 2013), including in self-rated (Hudson et al., 2013), which is one of the ways of measuring health in surveys, since self-rated health is an inclusive measure of public health (Mackenbach et al., 2002). More recently, Mackenbach and colleagues (2008) analyzed socioeconomic inequalities in self-rated health and mortality in 22 European countries and found that in almost all of those countries mortality rates and poorer self-assessments of health were substantially higher in lower socioeconomic status groups (lower income, education and occupational status), though the magnitude of the

inequalities between high and low groups differed between countries. The positive impact of the three indicators of socioeconomic status on lower mortality and higher self-rated health was also found in Slovenia.

In a more recent study Alvarez-Galvez and colleagues (2013) examined the impact of socioeconomic status (income, education and occupational status) on self-rated health in 29 countries using European Social Survey data from 2002 to 2008. Across Europe income and education were generally associated with better health, while occupational status did not prove to have a uniform effect. Slovenian data indicated that education and income had significant and positive impact on self-rated health in all four waves, while occupational status was insignificant in all four waves. In Slovenia the socioeconomic model explained between 5 % and 6 % of variance in self-rated health. Furthermore, in the observed period a general trend of decline of the impact of education and income was detected in Slovenia, though education had the strongest influence on self-rated health in all four waves.

Research on mental health and distress has provided similar results with individuals from lower SES groups reporting worse mental health. Specifically, lower SES was found to be associated with the frequency of stressful life events and with emotional responses during stress. Furthermore, depression, mental health problems, and other indicators of distress are more common in lower SES groups, compared to middle or upper SES groups (for a review, see Baum et al., 1999; Lorant et al., 2003; Hudson et al., 2013; also see Aneshensel, 2009; for the effect of unemployment on mental health see Björklund, 1985; Mayer et al., 1991; Winkelmann and Winkelmann, 1998). Canadian Community Health Survey of adults aged 25 and older indicated that self-rated mental health and self-rated health were inversely associated with income. Specifically, “lower-income adults were more than three times as likely to report their health as fair or poor and 3–5 times more likely to report fair or poor mental health as those with higher incomes” (Bierman et al., 2012: 5). Socioeconomic inequalities in mental health were found also among children and youth (see, for example, Barrett and Turner, 2005; for research on determinants (including SES) of children and youth mental health, see, among others, Remschmidt et al., 2007; Dogra et al., 2009; Claveirole and Gaughan, 2011; Fitzgerald et al., 2011).

Consistent with studies from other countries, past studies of Slovenian population have also detected socioeconomic gradient in health, including mental health (Buzeti et al., 2011; Kamin et al., 2011; Jeriček Klanšček and Žiberna, 2012; Kirbiš, 2013; Ule and Kurdija, 2013; Tavčar and Kirbiš, 2014), with health inequalities increasing in the last decade according to some studies (e.g., Malnar and Kurdija, 2012).

How can the link from SES to health be explained? While space limitations precludes us from presenting detailed explanations, research indicates that socioeconomic deprivation (both absolute and relative) may affect health *directly* through a biological process (by hormonal, metabolic and immune response) with resistance and vulnerability factors (e.g., coping and social support) influencing the response to psychosocial stressors (e.g., negative life-event, chronic stressors and daily hassles). Psychosocial stressors that harm physical and mental well-being are disproportionately more frequent among those from lower SES (Marmot and Wilkinson, 2005). Socioeconomic deprivation may also affect *indirectly*, through lifestyle/behaviour patterns (for example there is increased risk of engaging in health-damaging behaviours, such as cigarette smoking, alcohol use and unhealthy diet among those in low SES groups), as well through physical environment, social environment and health care access (Adler and Newman, 2002).

2. Study aim

The aim of the present research was to examine the impact of individual and family socioeconomic status (SES) on subjective health outcomes (self-rated health, self-rated mental health and self-reported depression) among Slovenian young people aged 16–27 years. Studies on health inequalities among post-adolescent youth and young adults are relatively scarce, especially among youth from postcommunist societies. Since our cross-sectional data precludes us from making causal inferences regarding the SES–health link, the main purpose of the current study was therefore merely to investigate the existence and extent of socioeconomic inequalities in subjective health.

Since previous studies have shown that although women on average live longer than men, women report and suffer from worse health at younger age and in adulthood, at least up until their 50’s and 60’s (Verbrugge, 1989; Ross and Bird, 1994; Doblhammer and Hoffmann, 2009; Wiklund et al., 2012; compare with Walker, 2008; Demirchyan et al., 2012; for a discussion on gender and health see, among others, Jeffery, 1998; Bird and Rieker, 1999; Annandale, 2003; Brunner, 2006), including in studies of Slovenian adult population (Kamin et al., 2011; Malnar in Hafner-Fink, 2013; Ule and Kurdija, 2013) and Slovenian youth (Jeriček Klanšček, 2011; Jeriček Klanšček and Žiberna, 2012; Musil, 2011; Kirbiš, 2013). Younger youth was previously also found to report better subjective health than older youth, including in Slovenia (Jeriček Klanšček, 2011; Musil, 2011). For this reason we controlled for the effect of these two sociodemographic variables when investigating the effect of SES on subjective health.

3. Methods

3.1. Data

Cepus-FES Slovenian Youth 2013 Study consisted of stratified quota sample. The target population surveyed were Slovenian youth residing in the Republic of Slovenia and who were on May 28th 2013 aged between 16 and 27 years. The sample consisted of 907 respondents ($N = 907$; $M_{\text{age}} = 21.90$; $SD = 3.25$; 48.3% women). The survey was conducted between May 29th and July 20th in the form of a face-to-face interview, as a rule within households (for details on sampling, data collection, etc., Flere and Divjak, 2014).

3.2. Measures

3.2.1. Predictor variables

Socioeconomic status

Socioeconomic status can be defined as “a composite measure that typically incorporates economic status, measured by income; social status, measured by education; and work status, measured by occupation” (Dutton and Levine, 1989: 30; cited in Adler et al., 1994: 15) and therefore education, income and occupation are regarded as key indicators of SES (Graham, 2009: 6). Following past studies (see, among other, Mackenbach et al., 2008; Alvarez-Galvez et al., 2013; for reviews see, among others, Adler et al., 1994; Adler and Newman, 2002), we analyzed SES with two out of the three commonly used indicators of SES: educational level (respondent’s, father’s and mother’s education) and respondent’s income, as well as a perceived family material status.

Education

We measured respondent’s, father’s and mother’s educations with three identical items on a 5-point scale: “What is the highest achieved level of your [your father’s / your mother’s] education?” (1 = uncompleted primary school, 5 = completed master or doctorate degree). All three items were recoded to a 3-point scale (1 = primary level or less; 2 = secondary level; 3 = tertiary level).

Income

Respondent’s average monthly income was assessed with the following question: “Rate, please, what is your average monthly income? Sum all forms of income (in addition to wages, for example, this included any compensation, grant, allowance, interests, rental income, disability benefits, etc.)”. We recoded income values in into eleven categories (1 = 50 € or less; 11 = more than 1000 €).

Self-perceived family material status

Respondents also assessed their family’s relative material (economic) status in comparison to perceived Slovenian average with the following question: “How do you rate the material situation of your family according to the Slovenian average”? Answers originally coded on a 10-point scale (1 = highly below average; 10 = highly above average) were subsequently recoded to a 3-point scale of family’s relative material status (1 = (highly) below average, 2 = average; 3 (highly) above average).

Sociodemographic predictors

Two sociodemographic variables included in our analysis were *age* (measured as year of birth and subsequently recoded into age in years) and *gender* (female = 1, male 2) were measured with standard self-reported items.

3.2.2. Outcome variable

Self-rated health

A large number of empirical studies have demonstrated SRH is a powerful predictor of future morbidity, mortality, functional (dis)ability and other indicators of health and quality of life, even after controlling for objective health status and other physical, sociodemographic and psychosocial health indicators (Kaplan and Camacho, 1983; Idler and Angel, 1990; Idler and Kasl, 1995; Idler et al., 2000; for review of longitudinal studies on SRH predicting future mortality see Idler and Benyamini, 1997; for a meta-analysis see DeSalvo et al., 2006). SRH was also found to be a valid measure of a variety of physical and emotional dimensions of adolescent well-being (Fosse and Haas, 2009). We employed the frequently used single-item indicator of self-rated health: »In general, how would you rate your health? Would you say it is?» (1 = poor; 2 = fair; 3 = good; 4 = very good; 5 = excellent).

Self-rated mental health

Single item measures have become “the norm for measuring overall health in population studies published in the international literature” (Rohrer et al., 2005: 438). One of the indicators of mental health that has been in use since the 1970s is the single-item measure of self-rated mental health (SRMH): “In general, would you say your mental

health is..?” (1 = poor; 2 = fair; 3 = good; 4 = very good, 5 = excellent), which was also the measure used in our study. SRMH was in previous studies found to correlate with clinical mental health measures, mental health conditions and with physical health, and with more frequent medical, psychiatric and social service use. Furthermore, SRMH was found to be associated with psychiatric diagnoses and distress; significant relationships were also found between SRMH and depression, anxiety disorders (panic disorder, social phobia, agoraphobia), substance dependence (alcohol dependence, illicit drug dependence), psychiatric comorbidity, etc. (for a review, see Jhajj, 2010). SRMH was also found to correlate with SRH (ibid.). SRMH thus previously proved to be a valid and reliable indicator of mental health.

Self-reported depression

Another single-item measure that has been popular among researchers in recent years is a self-reported depression measure, which was also used in our study: “How much did the following statement apply to you over the past week?” “In the past week I felt sad and depressed” (1 = did not apply to me at all, 2 = applied to me to some degree, 3 = applied to me to a considerable degree, 4 = applied to me very much). This item is one of the items used in the Depression, Anxiety and Stress Scale (DASS scale; see Lovibond and Lovibond, 1995; Crawford and Henry, 2003).

4. Results

Table 1 presents descriptive statistics for three health outcome variables. Results indicated relatively high levels of self-rated health among Slovenian youth. Specifically, 16.8 % of respondents rated their health as “excellent”, 36.1 % as “very good” and 35.5 % as “good”. Furthermore, only 0.4 % of respondents rated their health as “poor” and 11.1 % as “fair”. The results in Table 1 also indicate relatively high levels of self-rated mental health (SRMH) among Slovenian youth, with every fifth respondent rating own mental health as “excellent”, almost four out of ten rated it as “very good” and three out of ten as “good”. Furthermore, only 7.5 % of respondents rated their mental health as “poor/fair”. Results of self-reported depression indicator show that almost one half of respondents did “not feel depressed” in the previous week. On the other hand, 44.2 % reported feeling “somewhat depressed” in the previous week, and almost 10 % “felt depressed to a considerable degree” or “very much”. Finally, analyses by gender indicated that men reported better health on all three outcome measures (Table 1).

Table 1: Descriptive statistics for self-rated health, self-rated mental health and self-reported depression among Slovenian youth in 2013; total sample and by gender.

	Total sample N = 907	Men N = 469	Women N = 438
Self-rated health			
Excellent	16.8 %	21.7 %	11.7 %
Very good	36.1 %	38.4 %	33.6 %
Good	35.5 %	31.0 %	40.4 %
Fair	11.1 %	9.0 %	13.4 %
Poor	0.4 %	0.0 %	0.9 %
Self-rated mental health			
Excellent	20.7 %	25.2 %	15.9 %
Very good	39.6 %	40.8 %	38.3 %
Good	32.1 %	27.2 %	37.4 %
Fair	6.9 %	6.1 %	7.8 %
Poor	0.6 %	0.6 %	0.6 %
Self-reported depression (“Respondent felt depressed in the previous week”)			
Did not apply to respondent at all	45.8 %	55.2 %	35.8 %
Applied to respondent to some degree	44.2 %	38.9 %	50.0 %
Applied to respondent to a considerable degree	7.2 %	4.7 %	9.9 %
Applied to respondent very much	2.7 %	1.3 %	4.3 %

Source: CEPYUS-FES Slovenian 2013 Youth Study (2013).

Note: Self-reported depression was measured with the following item: “How much did the following statement apply to you over the past week? In the past week I felt sad and depressed” (1 = did not apply to me at all, 2 = applied to me to some degree, 3 = applied to me to a considerable degree, 4 = applied to me very much).

Finally, we were interested in how much of the variance in three measures of subjective health could be explained by five socioeconomic variables and which of these was the best predictor of stress, after controlling for the effect of two sociodemographic variables (gender and age). Hierarchical multiple regression was used and preliminary analyses showed that no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity occurred. Table 2 presents the results.

Table 2: Hierarchical multiple regression model estimating effects of sociodemographic and socioeconomic variables on self-rated health (SRH), self-rated mental health (SRMH) and self-reported depression (SRD) among Slovenian youth in 2013.

SRH	B	SE B	β	SRMH	B	SE B	β	Depression	B	SE B	β
Constant	2.60	0.24		Constant	2.66	0.23		Constant	2.83	0.18	
Gender	0.30	0.06	<u>.17</u>	Gender	0.25	0.06	<u>.14</u>	Gender	0.29	0.05	<u>.20</u>
Age	-0.02	0.01	<u>-.08</u>	Age	-0.01	0.01	-.05	Age	0.00	0.01	.02
R ² = .032				R ² = .021				R ² = .041			
F = 13.06				F = 8.60				F = 16.98			
Constant	2.16	0.30		Constant	2.06	0.29		Constant	2.83	0.18	
Gender	0.30	0.07	<u>.17</u>	Gender	0.24	0.06	<u>.14</u>	Gender	0.30	0.05	<u>.21</u>
Age	-0.03	0.01	-.10	Age	-0.02	0.01	-.07	Age	-0.01	0.01	-.04
Respondent's education	0.09	0.07	.06	Respondent's education	0.11	0.07	.07	Respondent's education	0.10	0.06	.08
Father's education	0.16	0.06	<u>.10</u>	Father's education	0.07	0.06	.05	Father's education	0.11	0.05	<u>.09</u>
Mother's education	-0.06	0.06	-.04	Mother's education	-0.08	0.06	-.05	Mother's education	-0.11	0.05	<u>-.10</u>
Perceived family material status	0.09	0.05	.07	Perceived family material status	0.25	0.05	<u>.20</u>	Perceived family material status	0.10	0.04	<u>.10</u>
Respondent's monthly income	-0.01	0.01	-.02	Respondent's monthly income	-0.00	0.01	-.01	Respondent's monthly income	0.00	0.01	.01
R ² = .050				R ² = .066				R ² = .063			
F = 5.89				F = 7.94				F = 7.60			

Source: CEPYUS-FES Slovenian 2013 Youth Study (2013).

Note: Beta values that are underlined indicate $p < .05$; beta values that are in bold indicate $p < .01$; and beta values that are both underlined and in bold indicate $p < .001$. Outcome variables were recoded in the direction with higher values indicating more favourable health outcomes. For the purpose of regression analysis, the levels “poor” and “fair” in SRH and SRMH were grouped into a single category, since the category “poor” was mentioned by only a small number of respondents (see Table 1).

In all three models, gender and age were entered at Step 1. Both of these variables explained combined 3.2 % of the variance in self-rated health. After the entry of five indicators of respondent's and his/her family's socioeconomic status at Step 2, the total variance explained by the model as a whole was 5.0 %, $F(7, 787) = 4.67$, $p < .001$. Five SES predictors explained an additional 1.8 % of the variance in SRH, after controlling for gender and age, $R^2 \text{ change} = .02$, $F \text{ change}(5, 786) = 2.96$, $p < .05$. In the final model, only two of the seven predictors were statistically significant, with gender recording higher beta value ($\beta = .17$, $p < .001$) than respondent's father's education ($\beta = .10$, $p < .05$) indicating that men and those with more educated fathers reported higher levels of SRH.

With regard to self-rated mental health, gender and age were again entered at Step 1, explaining 2.1 % of the variance in SRMH. After the entry of five SES predictors at Step 2, the total variance explained by the model as a whole was 6.6 %, $F(7, 787) = 7.94$, $p < .001$. SES predictors explained an additional 4.5 % of the variance in SRMH, after controlling for gender and age, $R^2 \text{ change} = .05$, $F \text{ change}(5, 786) = 7.54$, $p < .001$. In the final model, two predictors were statistically significant, with perceived family material status recording the highest beta value ($\beta = .20$, $p < .001$), followed by gender ($\beta = .14$, $p < .001$), indicating that men and those with higher perceived family material status reported higher levels of SRMH.

Finally, regarding self-reported depression (SRD), gender and age were again entered at Step 1, explaining 4.1 % of the variance in SRD. After the entry of five SES predictors at Step 2, the total variance explained by the model as a whole was 6.3 %, $F(7, 787) = 7.60$, $p < .001$. SES predictors explained an additional 2.2 % of the variance in SRD, after controlling for gender and age, $R^2 \text{ change} = .02$, $F \text{ change}(5, 786) = 3.73$, $p < .01$. In the final model, four out of seven predictors were statistically significant, with gender recording the highest beta value ($\beta = .21$, $p < .001$), followed by three SES measures, which attained the following betas: mother's education ($\beta = -.10$, $p < .05$); perceived family material status ($\beta = .10$, $p < .01$) and father's education ($\beta = .09$, $p < .05$).

5. Discussion and conclusion

The aim of the present research was to examine the extent of socioeconomic inequalities on three measures of subjective health among Slovenian youth in 2013, after controlling for the effect two sociodemographic variables, gender and age. Past research has found that socioeconomic inequalities in health exist across modernized countries and that health inequalities in past decades are both continuing, and in some countries and on some health measures, increasing (Marmot et al., 1991; Macintyre, 1997; Annandale, 1998; Adler and Ostrove, 1999; Lundberg and Lahelma, 2001; Nettleton, 2006; Mackenbach, 2012). Past studies of Slovenian population detected socioeconomic gradient in diverse measures of subjective health status, including mental health (Buzeti et al., 2011; Jeriček Klanšek and Žiberna, 2012; Malnar and Kurdija, 2012; Kirbiš, 2013; Ule and Kurdija, 2013). In our study we also controlled for the effect of two sociodemographic variables since they were previously found to be associated with health outcomes. In other words, the possible effect of gender and age has been removed since we were interested whether our block of five socioeconomic variables were still able to explain some of the remaining variance in our three health variables.

The results indicated that combined models (seven predictor variables) explained relatively small and comparable amount of variance in SRH, SRMH and SRD (5.0 %, 6.6 % and 6.3 %, respectively). Comparing all seven predictors, gender proved to be the only constant and significant predictor with men reporting higher subjective health on all three outcome variables. Interestingly, age did not prove to be significant predictor when controlling for SES indicators in any of the three models. The effect of SES indicators and the sizes of the explained additional variance were smaller than variance explained by sociodemographic block. Among SES variables, subjectively perceived family material status was significant in two out of three models in expected direction, with higher perceived family status predicting better SRMH and SRD, consistent with past studies. Similarly, higher father's education predicted better SRH and SRD, but not SRMH. Results of our study indicates that different SES indicators impact three indicators of health, but in the expected direction, with those respondents with higher SES on average reporting better health outcomes in general health (SRH) and mental health (SRMH and SRD). The association between lower SES and lower mental health outcomes might be understood within several theories, among those with stress-theory that postulates that stress might play a role in developing depression: specifically, it is argued that inter-personal and intra-personal resources (coping style, locus of control, self-esteem, social networks and social support, etc.) buffer the impact that stress has on depression and that those from higher SES groups have more such resources (see Lorant et al., 2003). There is also convincing evidence linking psychobiological processes and health with socioeconomic position (see, among others, Steptoe, 2006). In sum, our results confirm previous findings that "health problems increase progressively down the social strata in industrialized countries" (Brunner and Marmot, 2005).

There was also a rather surprising finding in our study. Mother's education was a significant predictor of self-reported depression in an unexpected direction with higher depression scores among respondents associated

with higher maternal education. Past studies on Slovenian adult female population have found that assessments of mental health were worse among women with 1) elementary or vocational education; 2) those with lower income; and 3) among working class and lower middle class women (Ule and Kurdija, 2013). A meta-analysis of the link between depression and socioeconomic inequalities by Lorant and colleagues (2003), for example, indicated a dose-response relation with each additional year of education the log odds ratio of being depressed decreasing by 3 percent (Lorant et al., 2003: 105).

It is not clear why in our sample the results differed from other studies that found lower maternal education to be associated with higher rates of depression among their offsprings (see Lipps et al., 2012). One possible explanation for our surprising finding could be that mothers with higher education have higher occupational status and higher income and are consequently more likely to be employed in occupational positions where they could be exposed to potentially more stressful and unfavourable working conditions, although studies from other countries have indicated the reverse (and expected) patterns (see Marmot et al., 1991; Bartley et al., 2005). Also, lower maternal education might also indicate socialization patterns and relationships between mothers and their children or relationships between both parents (i.e. more educated fathers and less educated mothers) that might be more beneficial for the absence of depression among youth. These are only speculations; underlying determinants and mechanisms that associate lower maternal education and lower reported depression among Slovenian youth should be more closely examined in future studies.

Our study has several shortcomings that need mentioning. Only three indicators of subjective health were investigated and future studies should also examine other health indicators. On a similar note, only five SES indicators were examined, while other potentially relevant indicators (housing, (un)employment, working conditions, etc.) were not included in our analysis. In addition, future studies should also examine the pathways through which SES has an impact on health of Slovenian youth. Specifically, the underlying factors (e.g., negative life events, chronic stressors, social support and networks, etc.) that underlie the SES-health link should be investigated.

In conclusion, our analysis indicates that among Slovenian youth 1) women and low SES groups have worse subjective health outcomes; 2) SES impacts mental health to a larger degree than overall health; 3) gender is more powerful predictor than any of the other five analyzed measures of SES. Our study results have several important implications: first, policy-makers should create programmes and interventions targeting young women and those from lower SES backgrounds with the aim of improving their general and mental health. One of the main ways this could be done, besides through public health initiatives and interventions at multiple levels (see Emmons, 2000), is through improving economic and social circumstances of at-risk youth, i.e. women and those from low SES, especially young women from socioeconomically disadvantaged families. Programmes involving “social responsibility” in relation to health should be implemented at the macro-level (states and state institutions), especially since potential benefits of “individual” social responsibility (for the meaning of the concept, see Knez Riedl and Mulej, 2006; cited in IRDO, 2014) or “healthy lifestyles” (which is one of the ways “individual” social responsibility could also be understood), were found to be 1) unevenly distributed across social structure (Blaxter (2005), for example, found that harmful behaviours (i.e. unhealthy lifestyles) have the strongest impact on health among those who live in the least vulnerable (social) environments, indicating that the most room for improvement of individual’s via “individual” responsibility is among those who are better-off); and 2) “healthy lifestyles” have a smaller impact on the health of individual than that the socioeconomic circumstances in which these individuals live (ibid.). In other words, it is important to realize that the potential, the extent and the consequences of individual social responsibility are dependent on their positions within social structure. Or as Sheaff (2005: 152) has put it: “Our capacity to act as autonomous individuals is not unbounded: this is why understanding the social context of individual behaviour is so important”.

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