

# John Henryism, Gender and Self-reported Health Among Roma/Gypsies in Serbia

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**Abstract** We describe how self-reported health (SRH) varies with gender and John Henryism (a strong behavioral predisposition to engage in high-effort coping to overcome adversity) in a low income sample of Serbian Roma. Data were collected in 2016 in several Roma settlements around Belgrade, Serbia. The sample consisted of 90 men and 112 women. In addition to John Henryism (JH), measured by a Serbian version of the John Henryism Scale, demographic data and data on SRH and family relationships dynamics were collected. SRH was positively correlated with age and JH, and negatively correlated with a history of chronic disease. Roma males and females differed significantly on JH and a number of other variables. For Roma women, multiple regression analyses revealed that a history of chronic disease, unemployment, age and daily stress level were negatively associated with SRH, while JH, SES and harmonious relationships with one's family/children were positively associated with SRH. For Roma men, there was no association between JH and SRH, but older age, being on welfare, a diagnosis of hypertension and extended family disputes were associated with poorer SRH. Hence, despite economic disadvantage and social exclusion from mainstream society, some Roma report good health and the ability to cope actively with economic disadvantage and social exclusion. This study adds to the literature on the cross-cultural relevance of JH theory for understanding health variations within socially and economically marginalized populations.

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## Introduction

In this study, we investigated several determinants of self-rated health (SRH) among the Roma/Gypsies, a historically marginalized population in many European countries. More specifically, we examined the role of John Henryism (JH), defined by James (1994) as a strong behavioral predisposition to engage in “high-effort” coping with social and economic adversity, in explaining variations in SRH in a low income sample of Serbian Roma. According to James (1994), the JH concept is based on the legend of John Henry (Johnson 1929), the late 19th century, African American unskilled laborer who allegedly defeated a mechanical steam drill in an epic contest of “man against machine” but then dropped died from complete exhaustion. Building on findings from a series of mid-1970s studies suggesting that repetitive, “high-effort” coping with difficult to manage stressors (e.g., unemployment, financial insecurity and racial discrimination) could increase long term risk for hypertension, James (1994) posited that the legend of John Henry serves as a metaphor for the African American experience. Further, given the well-known high rates of hypertension-related morbidity and mortality in the African American population (Subramanyam et al. 2013), some years ago James (1994) hypothesized that an unrelenting pursuit of success in the face of great odds, and importantly, in the absence of adequate resources, could exact a price on one’s *physical* health even if the pursuit is ultimately successful. With a primary focus on cardiovascular disease, a growing number of studies has tested this hypothesis, with some studies finding strong support (e.g., James et al. 1983, 1987, 1992; Mujahid et al. 2016), some finding mixed support (e.g., Duijkers et al. 1988; Dressler et al. 1998; Subramanyam et al. 2013) and others finding no support (e.g., McKetney and Ragland 1996).

The JH concept has also been used in population-based studies of self-rated health (e.g., Haritatos et al. 2007; Logan et al. 2015) as well as other measures of subjective wellbeing, in a range of US-based, racial and ethnic minority populations (e.g., Bennett et al. 2004; Stanton et al. 2010; Bronder et al. 2014; Logan et al. 2014). In general, the studies found that “high” JH was associated with better SRH, even in populations that routinely encounter various forms of discrimination in mainstream society. We reasoned that it might be informative to explore the relationship between JH and SRH in a historically marginalized European population, the Roma.

The Roma are the largest, poorest and the fastest growing ethnic group in Europe. As a noticeable and historically shunned minority, the Roma attract significant interest in political, social and health arenas (Rüegg and François 2009). Recent research has shown that Roma communities across Europe tend to have poorer health than the majority population, but these health differences cannot be fully explained by socioeconomic factors (Foldes and Covaci 2012). Roma have been called the “Blacks of East Europe” (Puxon 1976), “orphans of transition” (Barany

1998) and “the underclass” (Ladanyi and Szélényi 2002), terms reflecting their often deplorable life conditions. At the same time, they are also one of the most poorly understood European population groups in terms of behavior and culture (Čvorović 2014). Since their coming to Europe from northern India, sometime after 1100 C.E., the Roma have been received with hostility and have been blamed for everything from petty stealing to child stealing, cannibalism, and Satanism (Fraser 1992). Small, endogamous populations of Roma traders, craftsmen, and entertainers have lived for centuries within European societies, competing for economical and territorial niches (Oakley 1983). Past nomadism was an important characteristic of many Roma groups. Their flexibility and willingness to change location allowed them to exploit marginal opportunities within their hosts’ economies. Given this special economic niche, they never came close to having economic self-sufficiency. The Roma have engaged in whatever occupations they find available, and these mainly involve trading with outsiders in the surrounding society. Most of their employment has been marginal to the non-Roma economy and consists of tasks no one else has wanted (Lauwagie 1979).

In past decades, the European Roma population has been undergoing profound changes, such as the abandoning of traditional occupations and lifestyles, urban migration, and more recently, migration from Eastern Europe to wealthier Western European countries (Čvorović 2014; Čvorović and Coe 2017). Despite some positive changes such as recognition of minority status, formation of political and non-governmental organizations, the situation of many Roma remains unaltered; large segments remain poor, uneducated, and unemployed. To combat this, with the launch of the Decade of Roma Inclusion 2005–2015 in Central and Southeastern Europe, governments have introduced strategies aimed at the improvement of the Roma situation in several areas such as education, employment, health care and housing. Clearly, finding ways to integrate the Roma into the European society remains an ongoing challenge (Uzunova 2010).

With regard to Serbia, the majority of Roma arrived in the middle ages, accompanying the Turkish army (Vukanović 1983). The occupational niches they filled contributed to the Serbian economy, and although they made a contribution to the agriculturally-based economy, they were despised by the Serbian peasantry, always occupying an isolated and lowest status in the society (Djordjević 1932). Despite this contempt, a tolerant attitude was displayed towards the Roma, pushed further by a multicultural policy of the socialist post-war Yugoslavia, and because of this, the former Yugoslavia has been praised for treating the Roma better than any other East European country (Fraser 1992).

At present, domestic and international sources estimate Serbia’s Roma population to be around 600,000, which means that the Roma are the largest minority in Serbia (Council of Europe 2010). They constitute a complex mixture of groups, each a separate community with the whole arranged loosely into a social hierarchy; many still emphasize a distinction between non-Roma and Roma. The Roma live in isolated settlements, surrounded by the majority Serbs, with whom contact is limited to economic affairs. Although many of the Serbian Roma have lost their distinctive “Gypsy” characteristics, such as dress, way of life (nomadism), occupations and language, they have retained, for the most part, their traditional behavioral patterns

such as low school enrolment, separate settlements, kinship-based residential pattern, and marriage and reproductive practices. Extended family remains the most important social unit while a high level of endogamy is maintained by an extended kinship network in their settlements (Čvorović 2010).

The general socio-economic position of the Roma is characterized by widespread poverty and its effects: mass unemployment, low education, and dependence on state social help. According to the latest Serbian census, for almost 30% of the self-declared Roma population, government social assistance is the main source of income (Republički Zavod za Statistiku 2014). Several Serbian laws affirmatively treat Roma issues, and in this way, “single out” Roma from the rest of the population. Thus, the Roma are subject to Affirmative Action laws in Education (for secondary and tertiary education) and The Law on Health Insurance which confirms their full entitlement for services (e.g., all medical costs are covered by their specific health insurance) (RS Službeni Glasnik 2005). Serbia has also created a network of education and health mediators, recruited from the Roma population, to facilitate the Roma’s access to education and healthcare. Still, various inclusionary projects initiated, so far, have largely failed to provide measureable changes in the everyday lives of most Roma.

Roma are aware of their low social position, many arguing that no matter what they do, “it is never good enough for them [the Serbs]” (Čvorović 2010). Accounts of their life histories suggest a sense of acceptance of their low social status and negative stereotypes, no matter how much they dislike it (Čvorović 2009).

How do Serbian Roma cope with, and manage everyday stressors? Does coping influence their health, and do certain aspects of Roma traditional culture, i.e., the interaction between family members as well as the varying hierarchies within a family, mediate the relationship between health and coping in this historically disadvantaged group?

To our knowledge, this is the first study of how coping with adversity influences SRH among the Roma. Throughout their history, Roma have been stigmatized, segregated, and discriminated against, and in spite of these widely shared experiences among Roma populations, no research appears to have addressed the role of marginal status and social exclusion as shapers of their coping strategies and subjective health. Extending research on JH to Serbian Roma thus addresses the utility of the JH concept in explaining variations in subjective health and wellbeing in a marginalized Eastern European population, one that has a very different social, cultural, and political history from the population that initially gave rise to JH research.

Research on the relationships between JH and cultural behavior and values is also quite limited (Dilworth-Anderson et al. 2004). For example, the relationship between JH and social/kinship support is said to be inconclusive (Bronder et al. 2014; Jackson and Adams-Campbell 1994; Dressler 1985). Although family/kinship relationships have been described as the basis of Roma social life and identity, the influence of kin support and effects of kin hierarchy within Roma communities have not been systematically investigated. Thus, applying the JH construct in a study of social/kinship relations and health in the Roma not only contributes to the global JH literature, it also advances our understanding of the interaction between health-

coping-family relationships dynamics in socially marginalized ethnic minorities, more generally.

## Fieldwork and Measures

Fieldwork was conducted in the summer of 2016, in three Roma semi-urban communities located at the outskirts of Belgrade, the capital of Serbia, where, according to the latest census almost 20% of the Serbian Roma reside (Radovanović and Knežević 2014). The communities were previously studied by the first author who had established an excellent working relationship with them (Čvorović 2014). The sample comprised 202 Roma adults. Typical of community volunteer samples such as this, our sample contained more females ( $N = 112$ ) than males ( $N = 90$ ). The face-to-face interviews took place in their own homes or in that of a neighbor. All interviews were conducted in the Serbian language.

The settlements are typical for Roma, characterized by poverty, unemployment, poor education, poor quality housing, and relative segregation, although there are variations on the local level and also within the settlements. Because of the limited formal employment opportunities (due to the lack of education and skills), many Roma work in the informal sector (recovering and selling scrap metal, petty trade and smuggling).

John Henryism (JH) was measured by the 12 item John Henryism Scale for Active Coping (JHAC) (James et al. 1987). The scale was translated into Serbian by the first author (JC). The JHAC employs a 5-point Likert scale, ranging from 1 (completely false) to 5 (completely true). Hence, JH scores can range from a low of 12 to a high of 60. High JH scores connote energy, persistence, optimism, and a commitment to overcome adversity through hard work (James et al. 1983). Table 1 lists the 12 items contained in the JHAC, along with the Serbian translation of each item.

Most of the interviewed Roma were outgoing and amusing individuals. Given their generally low levels of literacy, especially among women, the interviewer (JC) in the majority of cases, read the statements aloud, and as necessary, used easy to understand synonyms to clarify ambiguities. Many times, specific answers and accompanying narratives provoked bursts of laughter and jokes. The majority of Roma approved of the scale, arguing that certain items/statements “really describe” in detail their attitudes. Most were able to immediately apply the statements to their own lives, discussing this and that situation as an example. Also, they especially liked the fact they got to “choose” from ranges 1—5 for each item. Several items, in particular, appealed to Roma women; for instance, several women argued that they fully recognize themselves in item number 5 of the scale (see Table 1 for item descriptions): “... if anything is going to be done right, I have to do it myself”. Other statements, like number 2: “Once I make up my mind ... I stay with it until the job is completely done” and number 6: “... I manage to find a way to do the things ... need to get done” appealed equally to both males and females, because, as one male informant explained “these describe our [Roma] stubbornness and

**Table 1** The English and Serbian versions of the John Henryism active coping scale

1	I've always felt that I could make of my life pretty much what I wanted to make of it	Oduvek sam verovao/la da od svog života uglavnom mogu da učinim sve što želim
2	Once I make up my mind to do something, I stay with it until the job is completely done	Jednom kada odlučim da uradim nešto, držim se toga dok taj posao u potpunosti ne završim
3	I like doing things that other people thought could not be done	Volim da uradim ono što drugi ljudi misle da je nemoguće
4	When things don't go the way I want them to, that just makes me work even harder	Kada nešto ne ide onako kako bih želeo/la, to me samo podstiče da se još više trudim
5	Sometimes I feel that if anything is going to be done right, I have to do it myself	Ponekad mislim da ako hoću da nesto bude uradjeno kako treba, to moram da uradim sam/a
6	It's not always easy, but I manage to find a way to do the things I really need to get done	Nije uvek lako, ali uspevam da nađem način da uradim ono što je potrebno da se uradi
7	Very seldom have I been disappointed by the results of my hard work	Veoma retko sam bio/la razočaran/a rezultatima svog napornog rada
8	I feel that I am the kind of individual who stands up for what he/she believes in, <i>regardless of the consequences</i>	Smatram da sam tip osobe koja se zauzima za ono u šta veruje, bez obzira na posledice
9	In the past, even when things got <i>really</i> tough, I never lost sight of my goals	U prošlosti, čak i kada mi je bilo mnogo teško nikad nisam gubio/la iz vida svoje ciljeve
10	It's important for me to be able to do things the way I want to do them rather than the way other people want me to do them	Važno mi je da mogu da radim stvari onako kako ja želim, a ne kako drugi žele da ih radim
11	I don't let my personal feelings get in the way of doing a job	Ne dopuštam svojim ličnim osećanjima da mi smetaju pri obavljanju posla
12	Hard work has really helped me to get ahead in life	Naporan rad mi je zaista pomogao da napredujem u životu

wittiness just the way we are”. In one of the settlements, by word of mouth, the JH scale became known as the “Roma” scale.

In addition to the JHAC, demographic information (e.g., age, religion, educational level, marital status, level of SES based on employment and income, and residence pattern) was collected, along with self-reports of health histories, including daily levels of stress, risk behaviors (smoking and alcohol consumption), and several questions pertaining to traditional Roma culture which incorporate the social/family dynamics, i.e., the patterns of relating and interactions between extended family members— levels and means of kinship/community support and kinship hierarchical relationship within one’s family (roles and responsibilities, levels of gender autonomy, including status of men and women within a family, gender-related power differences in decision making, and control of earnings). Data on how these gender roles played out in everyday Roma experiences were obtained through a semi-structured questionnaire, with both fixed and open-ended questions.

Socio-economic position of inhabitants in a Roma settlement is difficult to estimate since traditional objective measures of socio-economic position (such as education and income) do not mean very much for most inhabitants. In Serbia, the majority of Roma survive by combining social benefits with informal work, called “private” business by many Roma. The concept of John Henryism is probably most relevant for people still in the labour force (James et al. 1983; Subramanyam et al. 2013); however, among Roma, very frequently all family members, including both the very young and the relatively old, are included in these businesses (e.g., the gathering of old newspapers, iron and black-market dealings).

We first divided the sample into recipients of government assistance and those who do not receive social benefits. We then divided the sample into those not engaged in jobs outside the home (“poor Roma SES”, coded 1), those employed in “private” business (in informal sector, where earnings depend on the season and “pure luck” as Roma would say, or “average Roma SES”, coded 2), and those employed full time (non-poor, or “above Roma SES”, coded 3). Several housewives stated they should be included in the “full”time employment category since they work full time to keep their families life going.

Health status was evaluated with the single question, “How is your health in general?” Responses ranged from “very good” (score = 1) to “good-average” (score = 2) and “poor” (score = 3). The use of SRH as a summary measure of overall health is common in field surveys (Darviri et al. 2012). Also, this particular question has been shown to be a reliable predictor of other outcomes, such as subsequent use of medical care (Lindeboom and Van Doorslaer 2004). However, when the question is used among socially disadvantaged individuals, such as the Roma, it may also reflect shared social experiences, as well as lack of awareness of asymptomatic diseases (Sen et al. 2002; but see Subramanian et al. 2009). Thus, in addition to the Roma’s “internal” view of their health, we asked study participants whether their doctor told them they have a chronic disease (the responses were 1 for “Yes” and 2 for “No”). For Roma, “very good” health implies “being healthy as a horse;” i.e., having no health issues, or at least being able to carry on with the daily tasks “on one’s feet.” On the other hand, “average-good” health corresponds to minor health issues, like migraines, headaches, menstrual or menopausal

discomfort, while “poor health” implies having a physician diagnosis of chronic disease. We also asked questions about their most common causes of daily stress, their current stress levels (1 = lowest, 5 = highest), and the perceived cause of their health problems. Finally, we asked about their objectives for improving their lives, such as better health, going back to school, getting a job, etc.

A stepwise multiple regression, a semi-automated process of building a model by successively adding or removing variables based solely on the t-statistics of their estimated coefficients, was conducted to evaluate which independent variables predicted SRH in this sample. We began with no variables in the model and proceeded forward by adding one variable at a time. The dependent variable was SRH and the independent variables were age, gender, religion, education, marital status, type of marriage—arranged vs. free choice, residence pattern/extended vs nuclear family, employment, SES, welfare, diagnosis of chronic disease, type of chronic disease, smoking, drinking, daily stress level, common stressors, main cause of one’s health problems, one’s life objectives, JH, status/autonomy in family, power decision in marriage and level of social/kin support. We also performed additional separate regressions for males and females. Given the exploratory nature of our study, all associations were tested using two-tailed tests, with statistical significance set at  $p \leq .05$ .

## Results

The sample consisted of 202 Roma (90 males and 112 females), aged 21–69, and averaging 42 years. All participants reported having both an Identification and health card. Orthodox Christians constitute 51% of the sample; the remainder are Muslims. Roma males and females differ significantly on a number of variables; these gender differences are summarized in Table 2.

Males were slightly older than females ( $43.6 \pm 12.01$  vs.  $42.7 \pm 13.4$ ,  $p \leq .026$ ). Most (94.1%) participants were married; women were more likely ( $p \leq .038$ ) than men to be divorced or widowed. Age at first marriage for both genders was 17.6 ( $\pm 2.26$ ) but females entered first marriage earlier ( $p \leq .000$ ). The average number of living children, per woman, was 4.

Over 70% of the participants lived in an extended family, with an average member per household of 6.71. Again, males and females differ significantly, with males reporting more extended family co-habitants than females ( $p \leq .010$ ).

For the entire sample, educational status was low: average years of formal schooling was 4.95. ( $\pm 23.16$ ), but males attended school longer than females ( $p \leq .000$ ).

The majority of Roma (80% of women, 60% of men) in this sample received some sort of social assistance (social welfare/child allowances), more women than men ( $p \leq .007$ ). That is, in addition to the fully employed group, who do not receive social assistance, only 9 women and 18 men were not on government social assistance.

Full time employed Roma (the non-poor, “above average” Roma SES) constituted 12% of the sample; part time employed (“average Roma” SES)



**Table 2** Paired samples test Roma females and males paired differences

	Mean	Std. deviation	Std. error mean	t	Df	Sig. (2-tailed)
F age–M age	– 3.296	13.892	1.456	– 2.264	90	.026
F marriage status–M marriage status	.224	1.008	.106	2.102	88	.038
F age at first marriage–M age at first marriage _	– 2.835	3.163	.331	– 8.550	90	.000
F members per household–M members per household	1.131	4.126	.432	2.617	90	.010
F education–M education	– .7912	.4350	.045	– 17.350	90	.000
F welfare–M welfare	.175	.6072	.063	2.762	90	.007
F diagnosis of chronic disease–M diagnosis of chronic disease	– .1978	.653	.068	– 2.887	90	.005
F drinking–M drinking	– .923	.54223	.056	– 16.239	90	.000
F ways of support–M ways of support	– .1648	.6542	.068	– 2.403	90	.018
F arguments at home–M arguments at home	– .626	2.229	.233	– 2.680	90	.009
F position in family–M position in family	– .384	.5531	.057	– 6.633	90	.000
F cause of stress–M cause of stress	– 1.307	2.341	.245	– 5.328	90	.000
F cause of health problems–M cause of health problems	– 1.098	1.193	.125	– 8.786	90	.000
F JH–M JH	– 6.54	12.35	1.316	– 4.970	87	.000
F_i1–M_i1	– .545	1.911	.203	– 2.677	87	.009
F_i2–M_i2	.055	1.424	.150	.370	89	.712
F_i3–M_i3	– .755	2.194	.231	– 3.266	89	.002
F_i4–M_i4	– .144	2.353	.248	– .582	89	.562
F_i5–M_i5	– .755	2.051	.216	– 3.494	89	.001
F_i6–M_i6	.255	1.991	.209	1.217	89	.227
F_i7–M_i7	– .666	2.033	.214	– 3.110	89	.003
F_i8–M_i8	– 1.07	1.950	.205	– 5.243	89	.000
F_i9–M_i9	– .711	1.800	.189	– 3.747	89	.000
F_i10–M_i10	– .877	2.321	.244	– 3.587	89	.001
F_i11–M_i11	– .911	2.256	.237	– 3.830	89	.000
F_i12–M_i12	– .644	1.915	.201	– 3.191	89	.002

\*F females, M males

constitute 66%, while unemployed (poor Roma SES) constituted 21%. In the fully employed group, men usually had jobs in state companies, in semi-skilled positions such as city garbage and waste collection, while most women generally worked as

cleaners. The rest “managed” the best way they can, usually by petty trading with non-Roma individuals.

Overall, lower SES Roma reported significantly ( $p \leq .030$ ) poorer subjective health than higher SES Roma. The majority of Roma reported their health as “good;” over 70% reported not having received a physician diagnosis of chronic disease; and, among those with a diagnosis (27%), the most common was cardiovascular disease (hypertension). This was followed by diabetes, asthma and thyroid problems for women. In regards to gender, Roma males reported better health and fewer chronic diseases ( $p \leq .005$ ) than females.

Most Roma males and females were active smokers, consuming over one pack of cigarettes per day (81.3% and 85% respectively). The majority (85.7%) of males and almost one third of females (24%) consumed an alcohol drink, usually brandy, on a daily basis.

The overall mean score for mutual social/kin support (low = 1, high = 5) was 3.65 ( $\pm 1.64$ ). For the majority of Roma, social support comes from one’s family and extended kin. Only two women, both employed full time as cleaners in daycare settings, said they receive the most support from non-Roma (female) co-workers. For the sample as a whole, one’s live-in family is the main source of help, followed by one’s parents, a spouse, in laws, and finally help from the Centre for Social Work (CSW), without which many (especially women) stated they would not be able to feed their children. Typical reasoning was that the CSW “provides cash every month”. In turn, 13.2%, mostly women, said they receive no support at all. Several of these women explained that they feel like no one is supporting them, since they are the ones who do “all the work” for everybody else (members of their natal and extended families), including maintaining good relationship among family members.

Ways/means of support provided to their families and relatives differ among males and females ( $p \leq .018$ ): males claimed they provide mostly financial assistance- when they earn- but provide little help around the home and with children, while women stated they do both- all the time. In fact, the majority of Roma females are housewives, and in addition to female daily chores (cooking, cleaning, child rearing and kinship obligations) they provide the main portion of income for their families, since they are the primary recipients of government assistance (cash). Thus, the majority are in “control” of their earnings since their main way to support their children and families is financial; i.e., through welfare.

Interestingly, for the sample as a whole, there is an inverse correlation between receiving welfare and mutual social/kin support. Those on welfare receive and provide less support from/to their families and relatives than people not on welfare ( $R = - .156$ ;  $p \leq .026$ ).

Other family dynamics variables, including kinship hierarchy, status within a family, reasons for family dispute, and power decision in marriage revealed that the views of Roma males and females differ significantly (see Table 2). For instance, the majority of women stated that the most common cause of spousal arguments is husbands’ drinking and jealousy, while men claimed they most argue with their wives about money spending (“men are smarter,” they allege, “and know better with money”). Also, the bulk of women (77%) stated that they have a subordinate

position at home, resulting in low power decision within a home and marriage, while the majority of males (57%) claimed the opposite. However, both genders agreed that when extended family residence involves a husband's parents, the latter are shown the most respect, and accordingly, all family members submit to their authority. Many women grumbled that their mothers-in-law are in fact "in command". Most women see Roma marriage traditions (early marriage and childbearing, and low education) as the main reason underlying the subordinate women's position. The majority of males (71.4%) argued that girls should marry early, preferably in an arranged marriage, since "it is a good custom, a Roma tradition, and good for natality".

Daily level of stress was slightly, but not significantly, higher for males than for females: 4.46 ( $\pm$  0.93) vs. 4.21. ( $\pm$  0.89). The most common daily stressor differed between males and females: for women, the most common stressor was "inharmonious relationships" with family members, most often children (63.7%), while males were stressed the most by family disputes over money (35.2%), and the lack of work (34%) ( $p \leq .000$ ).

The most commonly reported cause of health problems was family disputes/living in an extended family for males (50.5%) and money shortage for females (42.5%), followed by work or lack of it for males (20.9%) and extended family for females (23.9%) ( $p \leq .000$ ).

Regarding objectives to improve one's life, only one third of both males and females said they could try to find a better or additional job; 50.4% of females and 30% of males said they are thinking of applying for additional social benefits, while the rest 56% stated they are not thinking about it at all.

The overall mean score for JH was 36.8 ( $\pm$  8.83); the Cronbach alpha coefficient, a measure of the JHAC's internal consistency, was an acceptably high 0.73 in this study. The mean JH score for Roma males was 37.6 ( $\pm$  8.67), while that for Roma females was 36.25 ( $\pm$  8.94), a statistically significant difference ( $p \leq .000$ ). As shown in Table 2, the JH statements where males and females do not differ are 4, and 2 and 6, statements that, according to informants, describe Roma "witty ways" (see Table 1).

## Stepwise Multiple Regression

A stepwise multiple regression was conducted to evaluate which independent variables predicted variations in SRH for the entire sample. Only three variables proved to be statistically significant predictors at the .05 level: diagnosis of chronic disease, age and JH. As shown in Table 3, for the sample as a whole, older age contributed to self-perceived (poorer) health, while higher JH and absence of chronic disease contributed to better self-perceived health.

Since Roma males and females differ on a number of variables, including JH, we ran separate regression analyses, with SRH as the outcome, for each gender.

Among Roma females, seven independent variables were statistically significant predictors: diagnosis of chronic disease, employment, SES, age, JH, daily stress level and common stressor were significantly related (Table 4). The multiple

**Table 3** Predictors of SRH entire sample

Model	B	Std. error	Beta	Sig	R <sup>2</sup>
					.516
Diagnosis of chronic disease**	-.937	.091	-.548	.000	
Age	.017	.003	.281	.000	
JH	-.010	.005	-.114	.025	

For SRH responses ranged from “very good” (score = 1) to “good-average” (score = 2) and “poor” (score = 3)

\*\*Diagnosis of chronic disease was coded 1 for Yes and 2 for No

**Table 4** Roma females' predictors of SRH

Model	B	Std. error	Beta	Sig	R <sup>2</sup>
					.655
Diagnosis of chronic disease**	.951	.104	.576	.000	
Employment	.180	.070	.148	.000	
SES***	-.231	.069	-.192	.011	
Age	.013	.004	.237	.001	
JH	-.013	.004	-.167	.001	
Daily level of stress	.068	.025	.181	.004	
Common stressor****	-.041	.020	-.131	.007	

For SRH responses ranged from “very good” (score = 1) to “good-average” (score = 2) and “poor” (score = 3)

\*\*Diagnosis of chronic disease was coded 1 for Yes and 2 for No

\*\*\*SES was coded 1 for “poor,” 2 for “average poor” and 3 for “above average”

\*\*\*\*Harmonious relations within a family

correlation coefficient was .89, indicating that 65.5% of the variance in SRH scores was accounted for by these seven variables.

Among Roma males, four independent variables: type of chronic disease/hypertension, cause of health problems, welfare and age were significantly related to SRH in stepwise regression model (Table 5). The multiple correlation coefficient was .64, indicating that 41.3% of the variance of SRH could be accounted for by these four variables.

Interestingly, for Roma males, JH was not associated with SRH. Instead, chronic disease/hypertension, being on welfare, older age and family disputes in extended family were statistically significant predictors of poorer SRH.

**Table 5** Roma males' predictors of SRH

Model	B	Std. error	Beta	Sig	R <sup>2</sup>
					.413
Type of chronic disease	.074	.016	.385	.000	
Cause of health problems	.196	.090	.191	.032	
Welfare	.500	.146	.301	.001	
Age	.020	.006	.291	.002	

For SRH responses ranged from “very good” (score = 1) to “good-average” (score = 2) and “poor” (score = 3)

## Discussion

This is the first study to assess SRH and its relationship to JH among Roma. Most Roma really liked the questions comprising the JHAC, providing additional support (see Duijkers et al. 1988; Haritatos et al. 2007; Logan et al. 2015; LeBrón et al. 2015; Mujahid et al. 2016) for the utility of this concept beyond the experiences of African Americans.

In the current study, the Roma were relatively healthy, or at least perceived themselves to be: only one third rated their health as “poor”, the most common complaints being hypertension and diabetes. As a check on the ecological validity of our SRH, we assessed—as suggested by Subramanian and colleagues (2009)—whether self-perceived health and SES would have the expected inverse relationship in this sample of Roma. Encouragingly, we found that SES and SRH were inversely related, which provided some confidence that our SRH measure might be associated in expected ways with other variables that define, more or less, traditional Roma culture. However, given that the complexity of a given culture cannot be fully captured in any one study (Kagawa Singer et al. 2016), we focused on sociocultural variables considered most relevant in shaping Roma behaviors that, in turn, influence subjective health and wellbeing among Roma males and females.

Consistent with previous studies in which higher JH scores were positively related to better self-perceived health (Haritatos et al. 2007; Bronder et al. 2014; Logan et al. 2015) we found a positive association between JH and SRH in the sample as a whole. However, we also found that Roma males and females scored differently on JH, and that the statistically significant positive association between JH and SRH, in the sample as a whole, was largely due to the underlying positive association for Roma females. Other analyses suggested that, for Roma females strongly predisposed to engage difficult life stressors with “determined, high-effort” coping, higher SES resulting from paid employment, harmonious family relationships (especially with children), and a non-subordinate status within the family are associated with relatively “good” subjective health.

As a stand-alone measure, however, JH represents only the predisposition towards active engagement with recurring life stressors. Such a predisposition, in addition to benefiting the sense of wellbeing among some Roma women, may have

also helped them to modify their behavior and adapt to new sociocultural roles in response to changing socioeconomic circumstances that may have opened up more opportunities for Roma women than Roma men. Recall that high JH among Roma women was almost completely absent among those in a subordinate family position.

Why does JH predict SRH for Roma women, but not Roma men? The larger sample size, and thus less potential selection bias among female respondents is one possible explanation. The fact that the interviewer (JC) is a female anthropologist whose gender may have prompted more candid answers from female respondents is another possible explanation (Betzig et al. 1988). Our results also depend on whether men and women report their exposure to daily stressors, their responses to these stressors, and their health conditions in the same way (Crimmins et al. 2010). And, finally, the SES context, especially for males, may need more careful attention during data collection than it was given in the current study if the relationship between JH and SRH among men is to be better understood (see James et al. 1983, 1987, 1992). It should be noted that over 60% of males in the current study could hardly make ends meet; and many could do so only through their wives' receipt of welfare. Hence, Roma males and females may be in the process of reversing the traditional "breadwinner" role, a development worthy of additional study and attention by policy makers.

Perhaps unsurprisingly, Roma males reported better self-rated health than females. Most studies indicate that women report a higher prevalence of disease than men (Pappa et al. 2015), as do older people and persons of low socioeconomic status (House et al. 2005). Furthermore, the relationship between unemployment and increased risk of morbidity and mortality is well known (Bambra and Eikemo 2009). The negative health effects of unemployment was particularly strong for women across Europe (Darviri et al. 2012). In fact, full-time work means better health for women who are mothers. For women, being at home with children was more stressful than working in an office environment (Frech and Damaske 2012). Stay-at-home mothers face the double burden of caregiving and household labor, each of which is negatively associated with health (Ross and Mirowsky 1995). Our findings are in line with these studies, in that for Roma women, being older, having a diagnosis of chronic disease, and being unemployed contributed to poorer SRH. In other words, active coping, being employed, enjoying higher SES (presumably due to their employment) and having less everyday stress from children were associated with better self-rated health.

Gender differentials in health are due to a combination of biological, social and behavioral differences as well as the interaction of these factors (Crimmins et al. 2010). In our sample, certain Roma individuals, in spite limitations are nevertheless able to maintain good health or, at least, are capable of developing coping strategies that mitigate the effects of ethnic exclusion, economic disadvantage and discrimination (Chen and Miller 2012). For some Roma women, being employed outside the home but still maintaining good relations with their children may be related to social and family success, hence rewarding high-effort coping behaviors (Dressler et al. 1998). These behaviors, in turn, may lead Roma women to perceive themselves as empowered and healthier. Many Roma males, on the other hand, are burdened by a lack of paid work and thus the ability to take care of their families.

This could adversely influence their subjective health. In spite of this, for males, only one third stated that finding a job or a better paid one was an important life objective. For the vast majority, the *status quo*, or applying for additional benefits seemed like a more reasonable goal: “Why not [apply for more government assistance] when it’s for free”, was typical reasoning for many. The “free” assistance implies that Roma do not pay the social security taxes needed to fund government benefits. Roma are well aware of this asymmetrical participation in social welfare systems: active regarding benefits, limited regarding contributions (UNDP 2002:3). This passivity has taken its toll: males on welfare (supported mainly by their wives) reported poorer health, due to frequent family disputes in extended family. “It is not that I don’t love my [extended] family”, explains a middle aged Roma man who lives with 10 other family members, “it’s just that we literally fight for space...and plus, there is never enough money”. Interestingly, even though that the majority of Roma females are on welfare, this has no direct effect on their perceived health, possibly due to the fact that their welfare cash every month maintain the family, contributing to their perception that, in addition to being full time “employed” as housewives, they support the family.

(Disputes in) extended family was the only aspect of Roma traditional culture that was a significant predictor of SRH, and this was true only for Roma males. Why is the availability of social resources insignificant among Roma? What factors influence the use of available resources, or intervene with the effect on important outcome variables like SRH or particular aspects of behavior (Martin and Westerh of 2003)? In our sample, being on welfare corresponds to receiving and providing less support from/to family and relatives. In the past, due to the segregation of the Roma, personal services through the kinship networks were particularly valuable resources (Čvorović 2010). But now the role of the family and kin in supplying these resources may have become less important among Roma. As several Roma women argued, the state “looks after them” by providing cash transfers every month, and this probably reduced the dependence on kin, and weakened the extended family. The impact of social welfare services on social relations and families is believed to be large, frequently positive but in some cases negative since it may alter traditional gender roles in the family (Ekpe and Christopher 2014; Halla et al. 2015). This could be what we are observing in this sample of Roma men and women.

Mean levels of JH in the current sample of Roma are significantly lower than in other studies; these include African Americans (James et al. 1987, 1992; Dressler et al. 1998), Europeans (Duijkers et al. 1988; Mujahid et al. 2016); Asian Americans (Haritatos et al. 2007; Logan et al. 2015) and Hispanic Americans (LeBron et al. 2015). The low JH scores of the Serbian Roma could reflect a number of factors, including acquiescence in the face of their marginalized circumstances or a growing dependence on “free” government assistance.

A potential explanation of such acquiescence could be the history and development of European Roma. For example, within Central and Eastern Europe, including Serbia, decades of provision by communism and socialist governments created welfare dependence for many Roma (UNDP 2002). In the former Yugoslavia, the seemingly strong multicultural policies promoted more favorable

treatment of the Roma, combined with a lack of forceful assimilation measures (Fraser 1992). These have resulted in a greater degree of tolerance of the Roma, which in turn, has allowed the Roma to feel unthreatened and free to go about their business (Čvorović 2010). Many older Roma still lament over the former Yugoslavia because, among other things, they were able to fully enjoy the fruits of communism: a guaranteed income despite there being little or no work at all, and the general enforced tolerance of all ethnic groups. These circumstances may have contributed to a depreciation among the Roma of a major premise underlying the JH construct; namely, that „hard work“pays off.

## Conclusion

In this paper, we examined the association between John Henryism, defined as a strong predisposition to engage in “high-effort” coping with difficult life stressors, and SRH in a sample of 112 Roma women and 90 men residing in three semi-urban communities at the outskirts of Belgrade, Serbia. We found that JH independently predicted SRH for Roma women, but not Roma men. For “high-effort” coping Roma women, a combination of higher SES, employment and harmonious relationship with family (especially children) were associated with better subjective health. Additionally, among females who scored high on JH, a strong correlate of JH scores was their non-traditional, “higher” social status in the family. The small sample size for Roma males, their high unemployment rate, and for many, the reliance on their wives’ welfare income to make ends meet may have mitigated the expected positive association between JH and SRH in the current study.

In countries with high concentration of ethnic minority populations, studies that employ comparable, but culturally valid measures of the social determinants (SES, health behaviors, sources of daily hardship, coping responses, cultural beliefs, etc.) are needed. Our study helps to address this need by describing some of the social determinants of self-perceived health among Serbian Roma. We are unable to generalize our findings to other Roma, especially those who live in rural areas, and who may differ in socio-economic resources and levels of social integration. Furthermore, all of our variables were self-reported, and the self-reported health data, while important in itself cannot not be equated with more objective physical health data.

In spite of these limitations our study has a number of strengths and implications for future research. The now well validated JH Scale for Active Coping was translated from English to Serbian and was shown to have good internal reliability, as well as cultural relevance in this sample of low income Serbian Roma. Our study thus expands the cross-cultural scope of JH research and reinforces previous findings (James 1994; Bennett et al. 2004; Haritatos et al. 2007; Bronder et al. 2014; Logan et al. 2015; Mujahid et al. 2016) that John Henryism is not inherently detrimental to health. Rather, there appear to be circumstances, as was the case for Roma women in the current study, where high JH seems to help foster a positive sense of wellbeing. More research is needed to clarify how changes in the social and economic circumstances are transforming traditional Roma culture, specifically



traditional gender roles and related social and health behaviors that shape risks for health and disease in this European ethnic minority population.

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### Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures involving fieldwork and participants were in accordance with the ethical standards of the Institute of Ethnography, Serbian Academy of Sciences and Arts research committee.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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