



Negative attitudes related to violence against women: gender and ethnic differences among youth living in Serbia

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Abstract

Objectives This study aimed to identify to what extent negative attitudes towards intimate partner violence against women are present among young women and men living in Serbia, in Roma and non-Roma settlements.

Methods We used the data from the 2010 Multiple Indicator Cluster Survey conducted in Serbia, for the respondents who were 15–24 years old. Regression analyses were used to examine the association between judgmental attitudes, socio-demographic factors and life satisfaction.

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Results In Roma settlements, 34.8% of men and 23.6% of women believed that under certain circumstances men are justified to be violent towards wives, while among non-Roma it was 5.6 and 4.0%, respectively. These negative attitudes were significantly associated with lower educational level, lower socio-economic status and being married. In multivariate model, in both Roma and non-Roma population women who were not married were less judgmental, while the richest Roma men were least judgmental (OR 0.40, 95% CI 0.18–0.87).

Conclusions Violence prevention activities have to be focused on promoting gender equality among youth in vulnerable population groups such as Roma, especially through social support, strengthening their education and employment.

Keywords Violence against women · Attitudes · Youth · Violence prevention · Gender · Serbia · Roma · Community

Abbreviations

VAW	Violence against women
IPVAW	Intimate partner violence against women
ULRA	Univariate logistic regression analysis
MLRA	Multivariate logistic regression analysis
MICS	Multi Indicator cluster survey
WHO	World Health Organization

Introduction

Intimate partner violence against women (IPVAW) is prevalent in almost all cultures around the world (Krug et al. 2002; Garcia-Moreno et al. 2006). Almost every third woman has experienced IPVAW worldwide (Devries et al. 2013), and almost every fourth woman in Serbia (Garcia-

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Moreno et al. 2006). In general population in Serbia, IPVAW might not be recognized as a concern of criminal justice system, being ascribed to traditional gender roles that tend to justify violence against women, although legislation has changed in 2002, which clearly recognizes IPVAW as a criminal act (Criminal Law 2002). This was the first and historical legislative step in Serbian society related to domestic violence.

IPVAW is even more frequent among women who are poor and living in deprived socio-economic groups and neighborhoods (Vives-Cases et al. 2014). According to the Census 2011, the greatest underprivileged population group in Serbia is the Roma group, who account for 2.0% (147,604) of the total Serbian population (Radovanović and Knežević 2014). Their education level, socio-economic status and health status are lower than that of general population (Janevic et al. 2012). Roma population is a very young ethnic community, where the average age is 27.8 years, while it is 42.2 years in the general population (Radovanović and Knežević 2014). Recent survey conducted in Roma settlements in Serbia indicated that at least every second Roma woman (53.7%) got married before reaching the age of 18 (Statistical Office of the Republic of Serbia 2011a). This leads to a large number of pregnancies, premature deliveries, but also induced abortions, which altogether negatively affect health of Roma women. Roma communities are usually poor and socially deprived areas, with very limited opportunities for personal and social advancements of their members, which leads to their low life satisfaction (Hajioff and McKee 2000; Janevic et al. 2012). Gender equality and women's rights in Roma communities are largely compromised, and Roma women are often exposed to IPVAW (Vives-Cases et al. 2014).

There are a number of factors that can predict IPVAW, and they appear at the individual, community and society level, according to the ecological framework (Heise et al. 1999; Djikanovic et al. 2010; Abramsky et al. 2011; Stith et al. 2004; Hindin et al. 2008; Jansen et al. 2016). Some of these factors are attitudes supportive of wife beating, i.e. gender stereotyping and discriminative norms that justify IPVAW under certain circumstances (Garcia-Moreno et al. 2006). Results from WHO multi-country study showed that percentage of women in general population who justify wife beating varied from 6% in Serbia to over 68% in some other countries where this study was conducted (WHO 2005).

Women who are violence victims might experience the lack of social support and to be more or less dissatisfied with various aspects of life, such as family life, friendship, school, job, or a way people behave towards them (Zapor et al. 2015; McDonnell et al. 2011). Recently, it was found that social support and empowerment directly correlated with life satisfaction among women who experienced

IPVAW (Song 2012). However, there are not many studies that explored the complex interplay between life satisfaction, as a proxy of social support, and the presence of judgmental attitudes towards IPVAW.

Despite recent reports describing position of Roma women and domestic violence in Europe (Vives-Cases et al. 2014; Prava za sve 2011; Statistical Office of the Republic of Serbia 2011a), this topic is under-researched, and empirical evidence is lacking. Also, little is known about the presence of judgmental attitudes related to IPVAW, among both women and men in disadvantaged population groups such as Roma. Gender differences in attitudes related to IPVAW are still unclear, as well as factors associated with them.

Although an average age for the first marriage in general population of Serbia is 31 years for men and 28 years for women, certain percentage of women 20–24 years old had been married before the age of 18 (8%), and even before the age of 15 (3%) (Statistical Office of the Republic of Serbia 2011b). In Roma population, these percentages are far more higher: 50.5% of Roma women who are 20–24 years old have been married before the age of 18, and 13.2% before the age of 15 (Aleksic 2015). It clearly indicates the need to investigate attitudes related to violence against women in these age groups. Young adults (15–24 years old), either married or not, might have the greatest potential to change, i.e. to adopt non-discriminative gender-related attitudes and show zero tolerance for violence against women. Reaching this subgroup is important for decreasing IPVAW and achieving higher levels of health and life satisfaction in the long run. Therefore, this study aimed to examine attitudes related to IPVAW among young women and men living in Serbia, and factors associated with their judgmental attitudes. We hypothesized that negative, judgmental attitudes towards IPVAW are more prevalent among young men than women, and more among less educated youth who are living in socially deprived areas.

Methods

Data

This study used the data from the fourth Multiple Indicator Cluster Survey (MICS4) that was conducted in Serbia in 2010, by the Statistical Office of the Republic of Serbia with financial and technical support from UNICEF (Statistical Office of the Republic of Serbia 2011a). The MICS4 was carried out on two distinctive nationally representative samples of a non-Roma population and a Roma population living in Roma settlements in Serbia. A stratified, two-stage random sampling was used. Stratification

was done according to the type of settlement (rural and urban), in all four regions (Belgrade, Vojvodina, Sumadija and Western Serbia, and Southern and Eastern Serbia) that are divided in 25 counties. Sampling framework was based on a data from Serbian Population Census 2002, and primarily sampling units (clusters) were enumeration areas.

In each stratum, a specified number of clusters were selected systematically, with probability proportional to size. Within selected clusters, an update of the household lists was performed, in order to indicate any change that had happened in either the household or facilities themselves. Another reason for updating household lists was to mark households with children under the age of five, since MICS4 was designed to provide a large number of indicators on the situation of children (but also women and young men). In the second stage, listed households were divided into households with and without children under 5, and a separate systematic sample of households was selected for each group (Statistical Office of the Republic of Serbia 2011a).

In Roma interviewed households, 1121 eligible men (aged 15–29) and 2234 eligible women (aged 15–49) were identified, while 877 men and 2118 women completed the interviews (response rate 78 and 95%, respectively). In non-Roma interviewed households, 1938 eligible men (aged 15–29) and 5797 eligible women (aged 15–49) were identified, while 1583 men and 5385 women completed the interviews (response rate 82 and 93%, respectively). In this study we were interested in men and women 15–24 years old, so from Roma sample we included 549 men and 812 women, and 790 and 1106 from non-Roma sample.

Survey instrument

Demographic and socio-economic characteristics of women were derived from the household questionnaire described elsewhere, while information on respondents' attitudes towards IPVAV was obtained through a face-to-face questionnaire conducted by trained interviewers (Statistical Office of the Republic of Serbia 2011a). Both questionnaires were based on the standard questionnaires used in MICS surveys.

Demographic and socio-economic variables

The demographic and socio-economic characteristics used in this analysis included age (categorized into two age groups: 15–19 and 20–24); marital/union status (currently or formerly married/in union, and never married/in union); education (no school at all, primary school, secondary school and university degree); type of settlement (urban/rural); region (Belgrade, Vojvodina, Sumadija, and Western Serbia, and Southern and Eastern Serbia) and wealth.

Wealth was measured by Demographic and Health Survey Wealth Index based on respondent's assets, i.e. household facilities (Rutstein and Johnson 2004). According to the wealth index, respondents were classified into five equal quintiles: poorest, poor, middle class, rich and richest.

Life satisfaction, as a proxy of social support, was operationalized through several domains: satisfaction with family life; friendship; school (for those who are still in school); current job (for those employed); health; place of living; how people behave towards them; appearance; current income; as well as an overall satisfaction with life, and indicating how happy they are. The respondents' satisfaction with those domains was measured by the 5-point Likert scale (1 = not satisfied at all, 5 = very satisfied). Satisfaction was defined if respondents marked their answer as either 4 (somewhat satisfied) or 5 (very satisfied).

Measures

The outcome of interest was the negative, judgmental attitude towards intimate partner violence against women, i.e. that the husband is justified in beating his wife/partner under certain circumstances such as: (1) if she goes out without telling him; (2) if she neglects the children; (3) if she argues with him; (4) if she refuses sex with him, and (5) if she burns the food. If respondents positively responded to any of these five statements that are reflecting circumstances in which violence happened, they were marked as holding judgmental attitude in IPVAV.

Statistical analyses

Chi-squared test was used to calculate statistical significance of differences between women and men and (1) socio-economic characteristics; (2) life satisfaction, and (3) judgmental attitudes related to IPVAV. Internal consistency of scales for measuring negative, judgmental attitudes and life satisfaction was measured by Cronbach's alpha coefficient, separately in both samples. These coefficients were very good for both scales: 0.78 and 0.88 (for negative attitudes, in non-Roma and Roma population) and 0.71 and 0.90 for life satisfaction scale (in non-Roma, and Roma population, respectively).

In both Roma and non-Roma population, univariate logistic regression analysis (ULRA) was calculated separately for women and men, examining the association of judgmental attitudes, socio-economic factors and life satisfaction. The multivariate logistic regression analysis (MLRA) model included variables if they were significantly associated ($p < 0.05$) with the outcome variable. The results of regression analyses were presented as odds ratios (OR) with 95% confidence interval (CI). Data were analyzed using SPSS 20.0.

Results

Socio-demographic characteristics of respondents in the sample are presented separately for men and women in both populations in Table 1. Average age in non-Roma sample was 20.13 years (SD 2.93): women 20.26 years (SD 2.94) and men 19.94 years (SD 2.91), and similar was in Roma sample: 19.76 (2.94): women 19.75 (2.93) and men 19.77 (SD 2.96) (not presented in the table).

In Roma sample, men were more educated than women ($p < 0.001$), contrary to non-Roma where women were more educated ($p < 0.01$). In both samples more women than men were married or lived in a union ($p < 0.001$). When life satisfaction was considered among Roma, more men than women were satisfied with friendship ($p = 0.014$), health ($p = 0.006$), and appearance ($p = 0.004$), while more women than men were satisfied with their current job, if they had one ($p < 0.001$). Among non-Roma, satisfaction with different domains was equally distributed among women and men except for the current income, where women were more satisfied ($p = 0.046$).

The presence of attitudes related to the justification of IPVAW among women and men 15–24 years old is presented in Table 2. Results showed that Roma men were more often justifying intimate partner violence against women under certain circumstances than Roma women (34.8 vs. 23.6%, $p < 0.001$), while it was far less often among non-Roma men and women (5.6 vs. 4.0%), without statistically significant difference ($p = 0.130$).

In both populations men were more prone to justify violence in comparison to women, but statistically significant difference was achieved just in Roma population sample. Also, only in Roma sample, women were more judgmental than men when burning the food was concerned (10.1 vs. 5.3%, $p = 0.002$).

In both populations, men's tendency to justify violence showed almost the same pattern of crude associations with socio-economic variables (Table 3). Higher level of education and higher wealth status significantly decreased chances to justify violence among both Roma and non-Roma men and women. Men and women who have never been married or lived in union were also less prone to justify violence (Table 3). Only in Roma population, justification of violence for any of the reasons was associated with living in any other region than Belgrade (Table 3).

However, associations between judgmental attitudes and different domains of life satisfaction were not similar in these two populations. Roma men who felt happy, and both Roma and non-Roma men who were satisfied with school were less prone to justify violence (OR 0.60, 95% CI 0.37–0.95; OR 0.44, 95% CI 0.22–0.86; OR 0.17, 95% CI 0.04–0.83, respectively) (Table 4). Roma women who

were satisfied with their friendships were also less judgmental (OR 0.54, 95% CI 0.36–0.81) (Table 4). Also, non-Roma women who were happy, satisfied with their health, and the place where they were living, had less chances to be judgmental (OR 0.41, 95% CI 0.18–0.95; OR 0.23, 95% CI 0.08–0.70; OR 0.50, 95% CI 0.26–0.97, respectively).

After adjustments, in MLRA model (Table 4), among non-Roma men all associations with judgmental attitudes disappeared, contrary to Roma men, where the directions of the associations remained the same, but confidence intervals became larger and some odds ratios lost their significance. However, the wealthiest Roma men remained to be those who were least prone to hold judgmental attitudes (OR 0.40, 95% CI 0.18–0.87) (Table 4). Also, living in any other region than Belgrade increased chances to justify violence in Roma population, although slightly attenuated in comparison to ULRA.

While education of Roma men did not play a role in the multivariate model, the association between the level of education in Roma women remained to protect them of being judgmental (primary school OR 0.51, 95% CI 0.32–0.79, and secondary school OR 0.15, 95% CI 0.06–0.38, in comparison to uneducated Roma women). Among both Roma and non-Roma women, those who have never been married were more likely not to justify violence, in comparison to married/in union women (OR 0.56, 95% CI 0.36–0.95, and OR 0.17, 95% CI 0.06–0.48) (Table 4). The significance of satisfaction with various domains of life disappeared after controlling for the other variables, in both Roma and non-Roma population.

Discussion

We examined the prevalence of judgmental attitudes related to intimate partner violence against women among young women and men living in Roma and non-Roma settlements in Serbia. The major strength of our study is the fact that we used a randomized, national-wide population based sample that allows generalization of findings, and that we compared two distinctive population samples.

Our results revealed that almost 35% of young Roma men 15–24 years old believed that beating wives/female intimate partners can be justified, which is the sharp opposite to less than 6% of men of the same age who are residing in non-Roma settlements. Identifying prevalence of judgmental attitudes in disadvantaged neighborhoods is very informative for setting priorities and creating an institutional response to violence against women at both community and national level. Our findings also add to the knowledge that gender equity and women's rights are very much challenged in poor communities, which makes Roma women among the most underprivileged members in

Table 1 Socio-demographic characteristics and life satisfaction among non-Roma and Roma women and men: data from Serbia 2010

	Non-Roma population			<i>p</i> value*	Roma population			<i>p</i> value*
	Women <i>n</i> (%)	Men <i>n</i> (%)	Total <i>n</i> (%)		Women <i>n</i> (%)	Men <i>n</i> (%)	Total <i>n</i> (%)	
Age				0.026				0.773
15–19	427 (38.6)	346 (43.8)	773 (40.8)		373 (45.9)	247 (45.0)	620 (45.6)	
20–24	679 (61.4)	444 (56.2)	1123 (59.2)		439 (54.1)	302 (55.0)	741 (54.4)	
Area				0.204				0.211
Urban	621 (56.1)	467 (59.1)	1088 (57.4)		518 (63.8)	331 (60.3)	849 (62.4)	
Rural	485 (43.9)	323 (40.9)	808 (42.6)		294 (36.2)	218 (39.7)	512 (37.6)	
Region				0.486				0.370
Belgrade	218 (19.7)	179 (22.7)	397 (20.9)		176 (21.7)	102 (18.6)	278 (20.4)	
Vojvodina	295 (26.7)	203 (25.7)	498 (26.3)		167 (20.6)	105 (19.1)	272 (20.0)	
Sumadija and Western Serbia	321 (29.0)	219 (27.7)	540 (28.5)		94 (11.6)	65 (11.8)	159 (11.7)	
Southern and Eastern Serbia	272 (24.6)	189 (23.9)	461 (24.3)		375 (46.2)	277 (50.5)	652 (47.9)	
Wealth index				0.201				0.842
Poorest	207 (18.7)	138 (17.5)	345 (18.2)		202 (24.9)	143 (26.0)	345 (25.3)	
Second	232 (21.0)	139 (17.6)	371 (19.6)		178 (21.9)	127 (23.1)	305 (22.4)	
Middle	215 (19.4)	150 (19.0)	365 (19.3)		161 (19.8)	101 (18.4)	262 (19.3)	
Fourth	215 (19.4)	176 (22.3)	391 (20.6)		153 (18.8)	107 (19.5)	260 (19.1)	
Richest	237 (21.4)	187 (23.7)	424 (22.4)		118 (14.5)	71 (12.9)	189 (13.9)	
Education				0.010				<0.001
None	5 (0.5)	4 (0.5)	9 (0.5)		129 (15.9)	46 (8.4)	175 (12.9)	
Primary	136 (12.3)	78 (9.9)	214 (11.3)		579 (71.3)	401 (73.0)	980 (72.0)	
Secondary	672 (60.8)	539 (68.2)	1211 (63.9)		100 (12.3)	97 (17.7)	197 (14.5)	
Higher/high	293 (26.5)	169 (21.4)	462 (24.4)		4 (0.5)	5 (0.9)	9 (0.7)	
Marital status				<0.001				<0.001
Currently married/in union	408 (36.9)	107 (13.5)	515 (27.2)		543 (66.9)	281 (51.2)	824 (60.5)	
Formerly married/in union	22 (2.0)	2 (0.3)	24 (1.3)		66 (8.1)	22 (4.0)	88 (6.5)	
Never married/in union	676 (61.1)	681 (86.2)	1357 (71.6)		203 (25.0)	246 (44.8)	449 (33.0)	
Life satisfaction								
How happy are you	1021 (92.5)	303 (92.4)	1324 (92.5)	1.000	690 (85.0)	463 (84.3)	1153 (84.7)	0.806
Satisfied with family life	1049 (95.8)	315 (97.2)	1364 (96.1) ^a	0.316	743 (91.6)	499 (93.1)	1242 (92.2) ^a	0.770
Satisfied with friendship	1040 (94.7)	315 (96.0)	1355 (95.0) ^b	0.413	689 (84.9)	492 (89.6)	1181 (86.8) ^b	0.014
Satisfied with school	477 (89.2)	130 (87.2)	607 (88.7) ^c	0.613	62 (7.6)	58 (10.6)	120 (8.8) ^c	0.076
Satisfied with current job	137 (79.7)	74 (76.3)	211 (78.4) ^d	0.624	40 (57.1)	81 (52.9)	121 (54.3) ^d	<0.001
Satisfied with their health	1076 (97.5)	324 (98.8)	1400 (97.8)	0.229	733 (90.3)	519 (94.5)	1252 (92.0)	0.006
Satisfied with where they live	908 (82.2)	282 (86.0)	1190 (83.1)	0.134	572 (70.4)	373 (67.9)	945 (69.4)	0.356
Satisfied with a way people behave to them	993 (90.0)	304 (92.7)	1297 (90.6)	0.180	660 (81.3)	468 (85.2)	1128 (82.9)	0.067
Satisfied with appearance	1002 (90.9)	303 (92.7)	1305 (91.3)	0.386	741 (91.3)	524 (95.4)	1265 (92.9)	0.004
Satisfied with their life, overall	1040 (94.2)	307 (94.2)	1347 (94.2)	1.000	693 (85.3)	468 (85.2)	1161 (85.3)	0.999
Satisfied with current income	191 (68.0)	55 (56.1)	246 (64.9) ^e	0.046	108 (30.3)	83 (35.8)	191 (32.5) ^e	0.198

* According to Chi-square test

^a Out of those who have family (non-Roma population: *n* = 1419; Roma population: *n* = 1347)

^b Out of those who have friends (non-Roma population: *n* = 1426; Roma population: *n* = 1361)

^c Out of those who went to school during the last year (non-Roma population: *n* = 684; Roma population: *n* = 154)

^d Out of those who currently have a job (non-Roma population: *n* = 269; Roma population *n* = 223)

^e Out of those who have income (non-Roma population: *n* = 379; Roma population: *n* = 588)

Table 2 Beliefs related to justification of violence among non-Roma and Roma women and men 15–24 years old living in Roma settlement: data from Serbia 2010

Believes that husband is justified in beating his wife/partner if...	Non-Roma population			Roma population		
	Women (<i>n</i> = 1106) <i>n</i> (%)	Men (<i>n</i> = 790) <i>n</i> (%)	<i>p</i> value*	Women (<i>n</i> = 812) <i>n</i> (%)	Men (<i>n</i> = 549) <i>n</i> (%)	<i>p</i> value*
Goes out without telling him	16 (1.4)	12 (1.5)	1.000	110 (13.5)	115 (20.9)	<0.001
Neglects the children	30 (2.7)	32 (4.1)	0.138	157 (19.3)	155 (28.2)	<0.001
Argues with him	18 (1.6)	20 (2.5)	0.223	130 (16.0)	127 (23.1)	0.001
Refuses sex with him	6 (0.5)	5 (0.6)	1.000	93 (11.5)	82 (14.9)	0.072
Burns the food	4 (0.4)	4 (0.5)	0.905	82 (10.1)	29 (5.3)	0.002
For any of the reasons	44 (4.0)	44 (5.6)	0.130	192 (23.6)	191 (34.8)	<0.001

* According to Chi-square test

society, being discriminated at many levels (Vives-Cases et al. 2014; Prava za sve 2011; Cook et al. 2013; Petrovic et al. 2016). These results are in line with the results of similar studies that were conducted in the other environments and societies worldwide, such as New Zealand, Zimbabwe, Lebanon and Pakistan (McLaren 2010; Hindin 2003; Obeid et al. 2010; Zakar et al. 2013).

Furthermore, our results shown that in Roma neighborhoods great number of young women (23.6%) were also prone to justify partner's violence against themselves, most often in case when woman argues with her husband/partner (16%), or neglects the children (19.3%). However, it is much more than among young women in general, non-Roma settlements (1.6 and 2.7%, respectively), who seem to be aware of women's human' rights and show zero tolerance to violence. This gives hope that the next generations of women would not accept partner's violence as a mean of solving the disputes or conflicts, which is contrary to Roma communities. However, this later hypothesis is to be confirmed and quantified, since to our best knowledge, surveys related to the presence of IPV among Roma women in Serbia are largely lacking. Data from a neighboring country Bosnia and Herzegovina, indicate that 43.1% of Roma women stated that they were exposed to physical violence by their partners (Prava za sve 2011).

While there were no statistically significant gender differences in attitudes towards IPVAW among youth in non-Roma settlements, they were noted in Roma sample. Roma women were significantly less judgmental than men for every reason but burning the food. We were surprised by the finding that more women than men (10.1 vs. 5.3%) thought that burning the food might justify violence, which might indicate that every tenth young women do not just stick to the traditional role women have in society, but also being ready to judge, physically punish and discipline their peers who are not fulfilling expected women's role in the community. Even though the food might be scarce in these low-resources settlements, this attitude unfortunately

supports perpetuation of gender-based violence, gender inequity, and undermining women's rights. This *circulus vitiosus* is recognized in other countries as well, among underprivileged population groups, mostly migrants, Roma, women living in poverty and women living with disabilities (McLaren 2010; Hindin 2003; Obeid et al. 2010; Zakar et al. 2013; Vives-Cases et al. 2014). In national policies they must not be ignored and should be recognized as particularly vulnerable members of the community.

In both samples there were no significant gender differences in beliefs that husband is justified to beat his wife in case of refusing having sex with him, although these proportions are more than 20 times higher in Roma population (0.5 and 0.6% vs. 11.5 and 14.9%). It might indicate that communities shape the importance and role of sex in intimate relationships, much more than any other potential expectations in partnership, and both women and men agrees in these roles. It is similar to findings of Vyas and Heise (2016), who emphasized the role of community in gender-based violence.

Judgmental attitudes of young men and women living in Roma settlements are a serious obstacle to reaching their full potential in life, and not surprisingly, they have been associated with some aspects of life dissatisfaction. We found that women who are happy with their friends less often hold judgmental attitudes, which indicates the importance of strong female social network as a protective factor that keeps them safe, or at least aware that violence is forbidden and that cannot be justified. In creating society with zero tolerance of intimate partner violence both women and men have to be targets in educational programs and campaigns that are addressing violence-related prejudices. These educational programs and campaigns have to be carefully designed and structured, and based on multi-disciplinary approach (Husso et al. 2012). By now, those programs have been implemented in various environments worldwide, based on evidences, activities and principles

Table 3 Crude associations between socio-economic factors and judgmental attitudes related to violence against women among non-Roma and Roma women and men: data from Serbia 2010

	Having judgmental attitudes related to VAW			
	Non-Roma population		Roma population	
	Women OR (95% CI)	Men OR (95% CI)	Women OR (95% CI)	Men OR (95% CI)
Age				
15–19	1.00	1.00	1.00	1.00
20–24	1.10 (0.59–2.07)	0.93 (0.51–1.72)	1.17 (0.85–1.62)	1.69 (0.18–2.42)
Area				
Rural	1.00	1.00	1.00	1.00
Urban	0.70 (0.38–1.29)	0.37 (0.20–0.70)**	1.31 (0.94–1.84)	1.10 (0.77–1.58)
Region				
Belgrade	1.00	1.00	1.00	1.00
Vojvodina	1.96 (0.80–4.78)	0.96 (0.41–2.23)	8.61 (4.52–16.39) **	2.98** (1.66–5.36)
Sumadija and Western Serbia	1.38 (0.55–3.46)	1.28 (0.59–2.82)	5.05 (2.46–10.38)**	2.56* (1.22–4.56)
Southern and Eastern Serbia	0.56 (0.18–1.80)	0.33 (0.10–1.06)	3.62 (1.96–6.69)**	1.25 (0.75–2.09)
Education				
None	1.00	1.00	1.00	1.00
Primary	0.26 (0.04–1.65)	0.24 (0.03–1.83)	0.41 (0.27–0.61)**	0.73 (0.40–1.36)
Secondary	0.05 (0.01–0.32)**	0.05 (0.01–0.36)**	0.10 (0.04–0.24)**	0.24** (0.11–0.52)
Higher/high (4)	–	0.01 (0.01–0.13)**	–	0.30 (0.03–2.87)
Marital status				
Currently married/in union	1.00	1.00	1.00	1.00
Formerly married/in union	1.10 (0.25–4.91)	8.73 (0.51–149.55)	0.54 (0.27–1.06)	1.78 (0.75–4.27)
Never married/in union	0.13 (0.06–0.29)**	0.43 (0.21–0.88)*	0.54 (0.36–0.82)**	0.54** (0.38–0.79)
Wealth index				
Poorest	1.00	1.00	1.00	1.00
Second	0.26 (0.12–0.59)**	0.10 (0.03–0.36)**	0.48 (0.31–0.76)**	0.58* (0.36–0.95)
Middle	0.21 (0.08–0.52)**	0.41 (0.20–0.86)*	0.53 (0.34–0.85)**	0.71 (0.42–1.20)
Fourth	0.10 (0.03–0.35)**	0.08 (0.02–0.28)**	0.31 (0.18–0.52)**	0.42** (0.25–0.72)
Richest	0.06 (0.01–0.26)**	0.05 (0.01–0.22)**	0.31 (0.18–0.56)**	0.25** (0.13–0.50)
Life satisfaction				
How happy are you	0.41 (0.18–0.95)*	0.36 (0.10–1.33)	0.73 (0.48–1.13)	0.56 (0.35–0.89)*
Satisfied with family life	0.92 (0.22–3.91)	0.43 (0.05–3.63)	0.94 (0.52–1.70)	0.69 (0.35–1.35)
Satisfied with friendship	0.53 (0.18–1.53)	0.28 (0.06–1.35)	0.54 (0.36–0.81)**	1.08 (0.60–1.92)
Satisfied with school	0.48 (0.05–4.39)	0.17 (0.04–0.83)*	0.60 (0.30–1.20)	0.40 (0.20–0.80)**
Satisfied with current job	0.76 (0.08–7.55)	0.44 (0.07–2.83)	2.11 (0.21–21.41)	1.19 (0.62–2.29)
Satisfied with their health	0.23 (0.08–0.70)**	–	1.24 (0.70–2.21)	1.26 (0.56–2.81)
Satisfied with where they live	0.50 (0.26–0.97)*	0.75 (0.21–2.71)	1.26 (0.87–1.81)	0.73 (0.50–1.05)
Satisfied with a way people behave to them	0.48 (0.22–1.06)	1.28 (0.16–10.07)	0.80 (0.54–1.20)	1.32 (0.79–2.20)
Satisfied with appearance	0.51 (0.22–1.18)	0.34 (0.09–1.27)	0.71 (0.42–1.22)	1.14 (0.48–2.69)
Satisfied with their life, overall	0.84 (0.25–2.77)	0.99 (0.12–7.89)	0.82 (0.52–1.27)	0.84 (0.52–1.36)
Satisfied with current income	0.06 (0.10–1.39)	0.50 (0.08–3.15)	0.89 (0.48–1.65)	1.08 (0.62–1.88)

* $p < 0.05$; ** $p < 0.01$

that aimed to build life skills, i.e. positive behavior that enable person to deal with gender-based prejudices (Barker et al. 2007).

Some differences related to region of living have been noted as well. It seems that living in Belgrade, the capital of Serbia, is privileged and characterized by being more

Table 4 Adjusted associations between judgmental attitudes related to violence against women and socio-economic status and life satisfaction of women and men: final MLRA models adjusted for age: data from Serbia 2010

	Having judgmental attitudes related to VAW			
	Non-Roma population		Roma population	
	Women OR (95% CI)	Men OR (95% CI)	Women OR (95% CI)	Men OR (95% CI)
Area				
Rural		1.00		
Urban		0.22 (0.14–3.37)		
Region				
Belgrade			1.00	1.00
Vojvodina			7.72 (3.94–15.10)**	2.40 (1.27–4.55)**
Sumadija and Western Serbia			5.81 (2.76–12.26)**	2.29 (1.14–4.62)*
Southern and Eastern Serbia			3.47 (1.84–6.54)**	1.12 (0.64–1.94)
Education				
None	1.00	1.00	1.00	1.00
Primary	0.34 (0.05–2.40)	–	0.51 (0.32–0.79)**	1.16 (0.58–2.29)
Secondary	0.15 (0.02–1.10)	–	0.15 (0.06–0.38)**	0.49 (0.19–1.23)
Higher/High	–	–	–	0.76 (0.06–8.80)
Marital status				
Currently married/in union	1.00	1.00	1.00	1.00
Formerly married/in union	0.61 (0.12–3.18)	–	0.38 (0.18–0.79)**	1.30 (0.51–3.29)
Never married/in union	0.17 (0.06–0.48)**	0.58 (0.03–10.96)	0.56 (0.36–0.95)*	0.66 (0.40–1.10)
Wealth index				
Poorest	1.00	1.00	1.00	1.00
Second	0.51 (0.21–1.26)	–	0.57 (0.35–0.93)*	0.65 (0.38–1.12)
Middle	0.46 (0.17–1.25)	2.26 (0.13–39.76)	0.75 (0.45–1.24)	0.93 (0.52–1.66)
Fourth	0.34 (0.09–1.23)	0.47 (0.02–11.02)	0.51 (0.28–0.91)*	0.58 (0.31–1.09)
Richest	0.38 (0.08–1.80)	–	0.73 (0.38–1.41)	0.40 (0.18–0.87)*
Life satisfaction				
How happy are you	0.75 (0.29–1.92)			0.78 (0.46–1.32)
Satisfied with friendship			0.68 (0.42–1.10)	
Satisfied with school		0.14 (0.01–1.40)		0.82 (0.35–1.88)
Satisfied with their health	0.31 (0.09–1.06)			
Satisfied with where they live	0.72 (0.33–1.54)			

* $p < 0.05$; ** $p < 0.01$

open-minded and untraditional than living in the other, less developed regions. It might be explained by city's dynamic environment and population fluctuation that creates environment that do not facilitate trans-generational conduction of violence and discriminative gender roles. Women's rights are more acknowledged in Roma settlements that are nested within the large town, the capital, even in these pretty closed communities. We thought that perhaps more youth in Belgrade were educated which positively influenced their beliefs related to intimate partner violence, but associations with region remained stable even after control for the educational status as a possible confounder.

Violence has a huge impact on women's health, and calls for international action to prevent it, which would also contribute to sustainable development (Lee et al. 2016). Violence prevention activities happen in all three levels of prevention: primary, secondary and tertiary (Harvey et al. 2007). While secondary and tertiary prevention are responsibility of institutions, such as healthcare, police, social work and specialized agencies and organizations that are dealing with victims and/or perpetrators on a case-to-case basis, primary prevention happens in the community and address all its members. Within primary prevention, it is an imperative to raise awareness that IPVAV is

absolutely unacceptable and unjustifiable, and that it presents violation of the basic human rights of women. Primary prevention of violence also means creating a society that has zero tolerance for violence against women (Harvey et al. 2007), which might be particularly challenging in deprived population groups and underprivileged communities where this phenomenon is prevalent (Sorenson 1996; Locke and Richman 1999; Grossman and Lundy 2007; Condon et al. 2011; Cho 2012). Results of our study are sending a strong message to decision-makers and legislation, informing that certain proportion of young population in society will accept violent behavior that leads to breaking the law. The response might be increased penalties for IPVAW acts, and their public promotion in media, based on concrete cases. Some of the changes in criminal justice legislation have already taken place in Serbia, but it is questionable whether all segments of population reacted to them and decreased use of gender-based violence.

Social development programs that are focused on keeping youth within schools as long as possible, completing at least secondary level of education, and teaching them positive gender norms and values, should be priority for action (Dutton 2012; O'Leary and Slep 2012; Langhinrichsen-Rohling and Turner 2012). Additional area of interest that indirectly might be beneficial for Roma women is attending vocational trainings and engaging in paid-job activities that would enable them to take control over their lives, to increase their self-respect and assertive behavior associated with being bread winner (Barker et al. 2007; Dutton 2012; O'Leary and Slep 2012; Langhinrichsen-Rohling and Turner 2012). These would be fundamentals in primary prevention of violence, whose benefits would certainly exceed investments, with long-term positive effects on well being of women, men and overall society. Further research is needed to see how these interventions would influence gender norms related to violence and eventually an overall rate of violence against women in these communities.

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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 performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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

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